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Hugh Cecil Earl of Lonsdale.



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GITTLESON

Thomas Astley
Edward Stone
1810

A
PHILOSOPHICAL AND PRACTICAL
TREATISE ON HORSES,
AND ON THE
MORAL DUTIES OF MAN
TOWARDS
THE BRUTE CREATION:

COMPREHENDING
THE CHOICE, MANAGEMENT, PURCHASE, AND SALE
OF EVERY DESCRIPTION OF THE HORSE;

THE IMPROVED METHOD OF SHOEING:

MEDICAL PRESCRIPTIONS AND SURGICAL TREATMENT IN ALL KNOWN
DISEASES.

BY JOHN LAWRENCE.

For that which befalleth the sons of men, befalleth beasts; even one
thing befalleth them: as the one dieth, so dieth the other; yea, they have
all one breath;—

All go unto one place; all are of the dust, and all turn to dust again.

ECCLESIASTES.

Sunt enim animalia post hominem, ita ars veterinaria post medicinam
secunda est.

VEGETIUS.

Neque omnia, neque nihil.

THIRD EDITION, WITH LARGE ADDITIONS,

*In which the Nature and Tendency of Lord Erskine's late Bill for the legal Protection of
Beasts, are fully considered.*

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ERRATA.

Page 513, line 7 from bottom, *for* mercy, *read* misery.
524, 13 from do. *dele* a.

A
TREATISE
ON
HORSES.

CHAP. I.

VETERINARY MEDICINE AND SURGERY.

AMONGST the improvements of these latter times, the extention of a regularly cultivated system of veterinary practice, and the attempts to rescue the superior classes of domestic animals from the torturing hand of presumptuous ignorance, are not the least considerable, either in the view of humanity or use : it is true, that during the various ages which have passed since the days of Columella, the number of writers treating on the veterinary science, according to the best medical light which their times afforded, has been considerable ; but their works had never any very extensive circulation, competent practitioners were wanted to put

their precepts in force, and diseased animals were either totally neglected, or confided to the unmeaning and capricious efforts of the illiterate vulgar: entirely to wipe away this opprobrium of humanity and common sense, would infinitely redound to the credit of the present times; and it is consoling to be able to announce, that attempts are daily making towards that beneficent end, by considerate and philanthropic characters, in various parts of our own, and a neighbouring country.

The endeavour to promote veterinary practice amongst enlightened men, must necessarily be a first object in a treatise professing the principles of humanity: it is our business then to enquire, what causes have hitherto operated, or now subsist, to prevent or retard its progress; to demonstrate how little they consist with right reason, and to propose such practicable measures, as may effect, by easy and gradual steps, the desired reformation.

Ancient prescription and a false pride amongst the faculty, compose the two-fold cause which has hitherto generally deprived our domestic animals of the benefits and comforts of regular medical and surgical assistance. Cattle have always been doctored in every country, either by their attendants, or by men pretty nearly upon a level with those in point of education, who

on the strength of having learned to perform the most simple and common operations, and from the want of abler proficient, have undertaken the arduous task of prescribing medicine. We will not wonder, that in former times, such professors were held duly qualified, since men impartially committed their own persons to the hands of ignorant barber-surgeons, and since so many other absurdities of equal magnitude subsisted, which like spectres and ghosts have vanished at the approach of modern light; but it may well be thought surprising, that in this discerning age, when a liberal education is universally acknowledged to be absolutely necessary to the acquisition of medical science, that an illiterate farrier should be entrusted in the cure of diseases. Precisely the same studies, physiological, anatomical, and medical, are requisite for the veterinarian, as the human practitioner. The animal economy in its manifold relations is generally and fundamentally the same, in men and beasts, and governed by the same laws of nature and natural mechanics; the same *materia medica* is universally applicable to both, but the greatest skill is requisite to form a judgment on the diseases of brutes, from their inability to describe their feelings, and the consequent uncertainty of their pathology. Can there be a greater burlesque, than the supposition of a

man's ability to prescribe physic for a horse, merely because he understands how to groom or shoe him? or might not we also with equal reason, employ our own shoemakers, in taking measure of our health? The plea of experience is futile, from the utter inability, *primâ facie*, of illiterate and uninformed men to investigate the principles of science, and their total want of opportunity to acquire, even by rote, a rational system of practice. The whole stock of medical knowledge of these practitioners, usually consists in a certain number of receipts derived from their masters or fathers, and with which they continually ring the changes in all cases, right or wrong, hit or miss; and so fiercely are they bigotted to their particular nostrums, that they are totally incapable of all advice or improvement, the common and unavoidable fate of confirmed ignorance, since it is the highest point of knowledge, to know that we still need information. They sometimes cure by luck, seldom by wit, but often kill by regularly adapted process. How often has the miserable patient's shoulder been pegged, and blown, and bored, by way of punishment for the folly of getting himself strained in the back sinews of the leg, or coffin joint! How many pleuritic horses have been killed outright by ardent and spicy drenches, which might probably have

cured the cholic, had they been afflicted with it! How many have been rendered incurably lame, from the patten-shoe being affixed to the wrong foot; the doctor unfortunately not being aware of the difference between constriction and relaxation, as the patient in *Gil Blas* died because his physician did not understand Greek! Let not the reader suppose these to be mere flourishes; applied to the generality of farriers within my knowledge, I aver them, on the experience of many years, to be literal truths; and by the tenor of them, he may judge of the majority of that faculty throughout Europe. Into such hands do we commit distempered animals which have it not in their power to reproach us with their accumulated sufferings; mankind from prejudice, indolence, and want of feeling, neglecting those creatures which they can purchase with their money.

Dr. Hacket, in his late travels through Dacia and Sarmatia, relates the following wonderful feat of a farrier at Roman, in Moldavia. “It
“ was a hot day, and we having travelled far,
“ one of our best horses fell, and we gave him
“ up for lost. The farrier, who in Moldavia is
“ always a gipsey, comforted us by undertaking
“ to set the horse upon his legs, and recover him
“ perfectly in a quarter of an hour, which en-
“ gagement he really performed. He did no-

“ thing but scoop out from each upper eye-lid
“ of the beast, a gland the size of a hazle-nut,
“ without bleeding him, or using any other
“ means whatever, which might occasion a
“ doubt as to the efficacy of his operation.”

Who can be so sceptical as to doubt of the close affinity between cause and effect in this cure?

But the pride of medical gentlemen will not suffer them to incur the fancied degradation of becoming horse and cow-doctors; thence the major part of the public is necessitated to commit the care of their beasts to unlearned and empyrical hands; nevertheless were there a cordial and general encouragement, I am convinced there would be no want of able veterinary practitioners. What possible shame can or ought to be annexed to the practice of veterinary medicine, since it is an act of humanity, of important public service, since it has engaged the attention and the labours of some of the most eminent men both of ancient and modern times, and since the uncontrollable nature of things has placed the just administration of it out of the power of all but the enlightened? It must then be pronounced an honourable office, and altogether fit and becoming the *homo generosus*, or gentleman.

It hath been related, that veterinary writers have not been wanting; which has been more

particularly the case during the present century, and subsequent to the great modern improvements in medicine. Various able practitioners have also occasionally arisen among us, and in a neighbouring country; but the number of such has been so small, that the benefits derived from their efforts have been of course confined to a very narrow sphere. It was many years ago discovered in France, that the best remedy for this defect, and the only adequate method for the general propagation of veterinary knowledge, and the rearing of a sufficient number of persons properly qualified in that line, would be to erect public seminaries expressly dedicated to the purpose. We of this country came (somewhat late indeed) into the same salutary measure; and a Veterinary College, or Hospital for Cattle, has been established at London; another near Birmingham, and I believe one or two more are under consideration, in different parts of the kingdom. The propriety of these steps, and the benefits derived therefrom, are matter of proof, in the obvious extension of veterinary knowledge, and the increase of practitioners within these few years. Public institutions, provided they are not unduly favoured with exclusive privileges, or armed with coercive and restrictive powers, are ever most efficacious and contributory to the advancement

of science ; a prominent instance of the truth of which we are at this moment witnessing, in the late establishment of a board of agriculture, which in its infancy has already conferred benefits of the most important nature on the country, and in a much larger proportion than could possibly have been experienced from mere private exertions, or those of societies however favourably constituted, during a great length of time. To make use of a homely proverb, that which is every body's business is usually held to be no man's business, and therefore demands the fostering hand of the community : the scattered rays of knowledge are by joint and public means best collected into a common focus or centre, whence they are with more ease and expedition diffused and circulated throughout the whole body of the commonwealth.

I am here induced to retouch the subject of SHOEING, from various motives. To begin with the late Mr. Taplin's famous plates of pattern shoes, " which were to improve the " art to the unerring standard of ease and " safety," they were no other, neither better nor worse, than the common shoes of the superior kind of farriers, of which I made mention in the Chapter on Shoeing ; they are inclining to the convex externally, and so strong at heel,

that the horse can have no bearing on his frogs ; in fine, precisely the shoe of SNAPE and BEVAN thirty years ago. But enough has been already said of this gentleman's boasted originality. As to the length of the shoe in use at the College, about which Mr. Taplin descants so knowingly, it is in truth, (and ordinarily has been, I believe) governed by the same standard as his own, the length of the foot. Can any one in his right senses doubt the advantages, in point of security, both to rider and horse, of the latter treading upon a flat surface, and resting upon an additional point of support in the frog ?

Could a horse read, it would make him laugh to peruse Taplin's dapper description of his pattern shoes, celebrated as it is with words of high-sounding termination, and elucidated with geometrical lines, and scientific a's and b's. There is certainly a particular light in which this author's works are well entitled to notice ; and after such a professional fuss, who would be so rash as to suspect, the man knew nothing at all about the matter ?

It has been the fashion with our veterinary writers, to treat the public with after-pieces. Gibson gave his works to the world, repeated in a variety of forms. Bartlet, after his Gentleman's Farriery, published a work intituled,

Pharmacopœia Hippiatrica, or the Gentleman Farrier's Repository; to this work I alluded in my First Volume, under the name of a Compendium. Wood's Book of Farriery was followed by a Supplement; and Taplin, in conformity, must have his Compendium, and his *Multum in Parvo*. In the Compendium, are a few good observations, which had there been public need, a threepenny pamphlet would have contained; as to the *Multum in Parvo*, modesty and truth, had they enjoyed the honour to be of Mr. Taplin's council, would have whispered to him "to take down his "MULTUM, and let his PARVO stand." Mr. White, of late, has also treated us with an after-piece in his *Materia Medica* and *Pharmacopœia*.

The Veterinary College adopted a very judicious method of disseminating the true principles of shoeing, by erecting forges in different quarters of the Metropolis, where all persons may at any time have their horses shod, at the common price charged to subscribers. To obtain a participation of this benefit for the country, persons of consequence ought to supply their smiths with proper pattern shoes. Certain of my own particular friends having complained, that they could not by any means induce their blacksmiths to change their old erroneous method, I advised

them to send with their horses the following written notice :

“ Mr. *A. B.* desires his horses may be al-
“ ways shod, and their feet treated as follows :
“ Nothing to be cut from the soal, binders, or
“ frog, but loose rotten scales. No more open-
“ ing of heels on any pretence. No shoes to
“ be fitted on red hot. Shoes to be made of
“ good iron, with a flat surface for the horse
“ to stand on, web not so wide as formerly,
“ nor so strong at heel, that the foot may stand
“ level, and the frog be not prevented from
“ touching the ground.”

Rather than lose a good customer, this has always been complied with, and the happy consequence has been, that many horses which before had never a heel to stand upon, with scarcely a sound place in the crust in which to drive a nail, have now the enjoyment of their feet, in a full, strong, sound natural state ; and my friends, who were at first staggered by the prejudice and pertinacious impudence of the stable gentry, have at length learned to despise it as it merits, and to judge for themselves.

By the experiment of weakening, or lowering the shoe heels, in order to bring a deficient frog into contract with the ground, however gradually I proceeded, I have lamed several horses. St. Bel also did the same, on the first establishment of the Veterinary College.

It is sufficiently obvious, that, by such means, the back-sinews, as they are commonly styled, must be exposed to unusual extension. Such a plan is perhaps scarcely ever eligible, excepting indeed, when necessary to reduce the feet to their proper level, in the fortunate case of a natural luxuriance of growth in the frog, which it is the epidemic madness of farriers and smiths to cut away, in order to the miserable and useless substitute of a thick-heeled shoe. The friction of our hard roads, indeed of any roads, will always keep within bounds, the most luxuriant frogs. In the first shoeing a colt, it is of the utmost importance, that his frogs, if he have a sufficient growth of them, (which is not always the case) be brought to touch the earth, not, however, by the use of any measures of force, or setting the foot in an unnatural and uneven position: the paring around, or moderately lowering the crust of the foot, when so deep as to compress and injure the growth of the frog, is yet, not only perfectly safe, but highly necessary. It will soon appear, whether the horses' frogs and heels be of that nature to endure the concussion of the hard roads, which most assuredly, notwithstanding much confident assertion, too many never can endure; and if a bruised frog be not very common, all practical horsemen are enough convinced, how ex-

tremely liable the heels of horses are to contusion and inflammation. In bad cases of this kind, the only, and too much neglected remedy of the BAR-SHOE has been already appreciated; in general, to set such feet upon their natural level, all which ought to be attempted, will require shoe-heels of considerable strength.

It is matter of curious speculation, how many of the affairs of this world are managed, not merely erroneously, but in diametric opposition to reason and common sense. Discoursing the other day with a friend concerning a horse, he observed, "so much had the horse's feet been neglected, that his very frogs were suffered to grow large enough to touch the ground;" and this sagacious person had just sent to have the defect remedied, which, to my observation, was so effectually performed, that there was nearly room for a man's fist between the horse's frogs and the earth he trod upon.

Nothing can be more groundless, irrational, and vulgar, than that prejudice against veterinary improvements which actually subsists, at this time, in too many quarters. Prejudice, I know, on more important subjects, has often been trumpeted forth, as not only harmless but beneficial amongst men; which indeed would be just, were there any general utility in the

continuance of ancient abuses. It is the grand business of philosophy to provide a counterblast for these interested or ignorant trumpeters. It has already been asked of the advocates for our shoeing and sow gelding doctors, how they came to suppose, that less medical knowledge would suffice to prescribe for the brute, than for the human animal, who can orally depict his feelings, and verbally assist the physician in forming a correct judgment of his disease. They seem to act upon the strange supposition, that it is much easier for an illiterate man to penetrate at once, as it were by intuition, into the *areana* of the sciences, than for a learned, or well-informed, to render himself skilful in the nature and management of horses. Can a man be the worse farrier for having learned the necessity of making constant observations of his own instead of acting by rote, and being guided by a few arbitrary receipts; for knowing the nature of the medicines he prescribes, the anatomy and animal functions of the horse, and for the making all such knowledge his peculiar study? Now that witches, and ghosts of all kinds, are flitting apace off the scene, it is full time for men to lay aside the expectation of all other uncaused effects.

It ought never to be forgotten, that all improvements in the treatment of beasts have been

made by gentlemen and men of science ; and to the lessons of such, received at first with aversion, and inculcated by slow degrees, the present race of groomns and farriers owe their superiority over their predecessors. Precisely the same remark was formerly applicable to farmers, and if we except Ellis of Gaddesden, Bakewell, Duckett, and a few other individuals, men of genius and of an inquisitive mind, it would be difficult to find one who had ever been emulous of dis-engaging himself from the trammels of custom. Yet far be from me the arrogance of passing sentence of condemnation upon the whole body of farriers, in the aggregate, or of asserting their total inutility. There must necessarily exist, in such a numerous body, men of talents, and of very extensive practice ; but would not these men be rendered still more capable in their profession by the aids of education ? The force of authority and prescription is yet generally an over-match for the reasoning faculty. Your horse is sick—you apply, in course, to a regular farrier—it is a common case, the doctor hits it, and succeeds ; or nature, rest, and the untraced bill of costs, do the business. If a complicated and dangerous case, I say it is simply impossible, even for a man of genius, upon the strength of his own single experience, and without the benefit of regular

medical knowledge, which is the experience of ages, to judge otherwise than at random. Well, our empirical methodic now commences with some one favourite nostrum, which failing, he proceeds through his whole *circular routine*—and should the animal possess stamina sufficiently strong to enable him to survive the rude shock of this double disease, of nature and medicine, he must needs make a brave nag all his life after, for surely a trifle cannot hurt him. Should he chance to die, which sometimes may happen, it is plainly his own fault, not the farrier's who has doubtless done his best for the patient. As to the owner, no one can blame him, since, like a good subject, he has been guided by the custom of his ancestors, respecting "the wisdom of past ages"—nothing remains but for him to pay his bill, and to send for the farrier again whenever he may want him. But it is quite another thing, should a horse fail in the hands of a regular veterinary surgeon: the owner shakes his head, with a kind of serious look of self-approbation, which almost makes him amends for the loss of his horse; the tale goes round the circle of his friends—"Ah! no, no, it will never do."—It is precisely thus at present.

As Osmer says, "now I will tell you a story:"

About sixteen or seventeen years since, an infectious disorder crept in among my hogs. Many died, and the survivors were in a very unthrifty state. The weather was hot, and the styes full. According to my custom, in all cases of diseased animals, I consulted my surgeon. He very readily and liberally gave me his advice, and we tried the effects of some powerful medicines upon individuals, but without the smallest success : however I am at this day convinced, Hippocrates himself could not have given me a better general prescription than this gentleman, which was, “ fresh air, and aperient and alterative “ medicines mixed with the food.” But my over-looker had heard of a famous cow-leach, or farrier, at the distance of about forty miles, a man of such sovereign skill, that no disease could baffle him, and who my adviser shrewdly observed, must surely know better how to treat pigs than the surgeon, who only knew how to doctor christians. Of all mankind, I was one of the least likely to have faith in the possibility of miracles ; however I acquiesced, the man of practice was sent for, and after making a bargain for his fee, he sat out with ample promise of setting all to rights in a short time. I had already repented more than once, and the first conversation I had with the doctor, evidently shewed that I had just cause. He talked much

the same as other doctors generally do, who are totally ignorant of the nature and properties of medicine, who are not apprised of the necessary relation between causes and effects, and who never fatigue their brains with studying the doctrine of analogies: yet he could bleed, rowel, or glyster, scald for the poll-evil, peg and bore, give a pissing, or a——g drink; and (or else he lied) cure cows of the murrain, and sheep of the red water, young women of the ague and yellows, and old women of the trumps and rheumatism; nay, for any thing I can tell, might be equal to the celebrated Dr. K—— of Stanmore, the rival of the sage Dr. G. This skilful leach went into my styes, and cut off about half the tail from a considerable number of the fattest of the hogs; and, about an hour afterwards, I was sent for in great haste to bind them up, that the patients might not bleed to death, and there the matter ended; for I have never set eyes on the Doctor, or heard tale or tiding of him, from that hour to this.

By the discourse and publications of the superiors of this class, a man with a very moderate stock of information will readily appreciate their abilities; as to their publications, the common mode is, the farrier or leach empties his budget, or rather rehearses his *twenty, forty, or fifty years* experience, before some apothecary

cary or other person of his connection, who expunges, *adds*, or amends, as he sees necessary, and then arranges the “New and original Practical Treatise,” and puts it into intelligible English. To make things square, we will grant the Doctor an African memory, which had served him some scores of years by way of common-place-book; for farriers, I believe, seldom make notes, unless it be under their customers names in the ledger; yet I have known one, who could never write six lines of English in his life, publish a very elegantly written pamphlet!

I have this instant before me a very small, but high priced book, to wit 130 thin pages, price half-a-guinea, under the name of Downing, a Country Cattle-doctor of note; the author seems to set great store by his receipts, and in truth they are in some respects tolerably judicious; but at the same time such as an ordinary stock of medical knowledge must have suggested. The observations are few indeed, considered as the professed result of many years practice, and the description and appropriation of symptoms so vague and confused, as to afford little light; but the Doctor deals in fine words, which will doubtless help to sell his book. Nevertheless I freely acknowledge the receipts, and the *praxis* recommended, much

superior to any ever published before in our language by a practitioner of that class, which is a pleasing evidence of their improvement; at the same time I am convinced there is many a journeyman apothecary, or mere tyro from the College, who, without ever previously having had a beast by the horns in his life, would in two years practice, produce a much more comprehensive and useful treatise.

But the medical reader, or indeed any reader of common information, shall judge for himself of Doctor Downing's medical knowledge and ability, by the following extracts:

The BLACK WATER. “The cause of this
“ disease may be any thing that constringes the
“ external habit, either constipating or lubri-
“ cating the fluids beyond their due tone,
“ forcing an insurrection upon the vessels, so as
“ to rupture them, &c. &c.” A drink is then
ordered of dragon's blood, nitre, roch allum,
bole, rhubarb, and red sanders—next a glyster—afterwards nitre, prepared steel, red sanders and bole; and lastly, the following opening drink, *viz.* Epsom salts, nitre, and cremor tartar, to be repeated. Upon the virtues of the *opening drink*, the Doctor holds forth in the following extraordinary terms—“This medicine moderates the acrid, incrassates the thin, and cools the hot boiling blood; it

“ strengthens and corrugates the fibres, and
 “ closes up the mouth of the ruptured vessels ;
 “ it allays extreme thirst, and obtunds the
 “ acrimony of humours, thickens the too thin
 “ serum ; and is a well suited medicine in hot
 “ constitutions ; it opens obstructions, and pro-
 “ motes a regular discharge ; puts an effectual
 “ stop to disorders arising from relaxed diseased
 “ vessels, allays their irritation, and restores
 “ their due tone.” *Cedite Romani !*

After the opening drink, the following is re-
 commended with an—‘ or THIS’—“ Bole, red
 “ sanders, wood-foot, with 2 oz. spirits of tur-
 “ pentine.”—Then, as an infallible, and one
 which generally *gives a turn* to the disorder in
 twenty-four hours, a medicine composed of
 dragon’s blood and bole, in a pint of the best
 French brandy ; two hours afterwards 1 oz.
 sweet nitre. At last, an enumeration is made
 of various choice specifics, the first upon the ca-
 talogue of which, are hog’s dung, turpentine
 and butter-milk ; but the Doctor informs us,
 that if any benefit can arise from them, it must
 be in the beginning of the disease, “ by check-
 “ ing the stomach ; and that they can do no
 “ service when the relaxed state of the beast
 “ is arrived to an astringent one.”

In Bracken’s days nothing would go down
 with readers of a certain class, but “ downright

“Dunstable;” how amazingly the taste of such is improved, since nothing pleases now, unless it accord with the above elegant and highly finished specimens. This will bring in the half guineas rapidly, whilst the learned Layard lies neglected upon the stalls, scarcely worth poor eighteen-pence !

Enjoying a public institution in the metropolis, where veterinary science in all its branches is regularly taught and practised ; it remains for those who interest themselves in the safety and well-being of our domestic animals, to devise and recommend the most proper and expeditious methods of a general diffusion of the benefit throughout the country. I am about to offer my mite, which will at least have the merit of sincerity and good intent. Farriers in London ought to be advised by persons of influence, to allow their sons and apprentices the advantage of attending the college lectures, which are given, I believe, three times a week, and which is indeed already practised by several of good repute. There is little fear, that men of this stamp will be much influenced by useless and nonsensical theories, but they cannot avoid having their small stock of ideas considerably and usefully enlarged. Those gentlemen of the medical profession, attending the London hospitals, whose destination is for country prac-

tice, will surely perceive great probable advantage in the acquisition of veterinary knowledge, even if they have no present intention to profess that branch of medicine. Business, as is sometimes the case with young practitioners, may run short at the onset, and the leisure time might be both honourably and profitably employed in veterinary practice. Such meritorious and humane occupation could not possibly injure the medical character of a gentleman in these enlightened times; on the contrary, it would be more probable to procure him connections of the most valuable sort; might be his passport and introduction to the families of sportsmen, and afford him the opportunity enjoyed by Swift's happy Parson, to

“ Drink with the Squire——.”

Surgeons already settled, desirous of attempting veterinary practice, but from their situation not enjoying an opportunity of regular collegiate initiation, need not on that account be discouraged; they have before their eyes the examples of gentlemen both of former and the present times, deservedly of the highest repute as horse-physicians and surgeons, and who have owed their veterinary knowledge to their own meritorious and diligent exertions. The emoluments of a certain veterinary practitioner have

been said in print, to amount to more than two thousand pounds in one year. I have already pointed out the original authors, to which recourse may, and indeed ought to be had, for information upon the subject; and have endeavoured to ascertain their peculiar and characteristic merits, by which I have saved others the disgusting and unprofitable labour of wading through the mass, both of unsatisfactory and imperfect compilation, and original impertinence. Let me not be here censured as too assuming, since I have frequently heard surgeons express themselves at a loss what method to take, in order to qualify themselves for veterinary practice, and even deliberate on the propriety of having recourse to farriers for that end; others, I have known, commencing their veterinary career with scarcely having ever turned over a single page of the veterinary classics, or even knowing their names; and when, in some difficult case, which surpassed their slender experience, they have been advised to refer to proper authority, they have, in my hearing, expressed their wonder, “that men, who lived so long ago, should know so much.” That these authors have been too generally neglected of late, and their deserts ungratefully forgotten, witness the successful humbug of the Stable Directory.

The enquirer will not only find the analogy between brute and human bodies sufficiently close; the variations of material consequence few, and easily distinguishable, and, indeed, already distinguished to his hand, but also the powers and specific effects of medicine upon brute bodies, (horses are chiefly to be understood) very accurately ascertained. The horse, torn from the privileged state of nature, and domesticated with man, hath become, unfortunately, liable to nearly the whole of that black catalogue of diseases, whether of the “strictum” or the laxum,” of the solids or the humours, which torment and abridge the days of his tyrant. Apoplexy, consumption, jaundice, catarrh, rheumatism, stone, schirrous and cancerous affections, are common to both species, besides several diseases which are peculiar to the horse; the chief of these last are the grease and glanders, but not the farcy, as has been supposed; for I have seen a real farcy, or a succession of buds or phlegmons, running along the corded veins, from under the left breast to the abdomen, and around to the loins, upon a human subject; which I cured, but not under the space of ten weeks (the patient being of a weak cachectic habit) with the external application of a camphorated ointment, and the internal use of sulphur and cremor tartar. There

are peculiarities in the structure and organization of the body of the horse ; thus it is generally held at present, that he is incapable of vomiting from the oblique insertion of the *œsophagus*, the sphincter which compresses it, and the duplicature around the *cardia* ; although, formerly, it was asserted by farriers, and writers of that stamp, that both polypody of the oak, and human ordure, would occasion a horse to vomit ; which last, Bracken justly observes, is a puke for the devil. The horse is said by Clarke, not to possess the power of expelling wind, by eructation or belching ; which, however, I know by repeated experience, to be a mistake. Purgative medicines lie an unusual length of time in the body of a horse, from the great length and considerable volume of his intestines ; Bracken found the alimentary canal from the *œsophagus*, or gullet, to the fundament, to be thirty-five yards in a horse of middling size. Salivation is said, by the last-mentioned author, and by St. Bel, not to succeed with the horse, for which they assign their reasons.

On the head of ANATOMY, the practitioner need not want ample instructions. Our Snape, as has been observed, made a fair chart of the body of the horse, from the designs of the Italian Ruini, upon whom he improved. Ruini was cōtemporary with that grand constellation

of anatomists, from Vesalius and Fallopius, to William Harvey, who in the sixteenth and seventeenth centuries, revived that wonderful and useful science, and brought it nearly to the same state of perfection in which it is at present found. It was at this period, the immortal Harvey discovered the circulation of the blood; unless the honour of the discovery be more justly attributable, as the Italians assert, to their countryman, Fra. Paolo; however that be, we know that Harvey was a most sedulous and laborious experimenter, and that the tender-hearted and humane Charles, his feelings stifled by custom, a far more mighty tyrant than himself, furnished the operator with deer, in different stages of pregnancy, to be cut open alive, for the purposes of comparative anatomy. A more prudent man than myself would stifle such a sentiment; but I say, in the face of the world, that if the knowledge, even of the circulation of the blood, could not have been obtained otherwise, than by such barbarous and unjust means, I wish from my soul it had for ever remained a secret; and that the discoverer himself, and the king who ministered to his professional cruelties, (favourably, or rather fondly and partially, as I was ever disposed to judge of that monarch's character) had never existed.

Gibson copied Snape's anatomical plates, and our latter horse-anatomists have, generally, taken Snape for their guide.

Bracken in his translation of *La Fosse*, complaining of Gibson's plates, promised a new edition of those of Snape, with annotations, to be published by Osborne, which I know not whether he lived to execute. Several persons, during the present reign, have published the anatomy of the horse, amongst whom Stubbs, the justly celebrated horse-painter, and Blaine, the dog-surgeon, are the most eminent: the plates of the latter are beautifully and skilfully coloured. I cannot help stopping by the way a moment, to relate a little anecdote which bears relation to Stubbs, whose great merit as an artist I highly respect, although I know not the man. A few years since, this famous painter presented, at the annual exhibition, a picture of bulls fighting; this the critics condemned as tame and spiritless, because the animals were not represented with all the fiery and active ferocity of tygers or stallions; the truth is, the picture is the justest and most natural representation of a combat between those sedate and heavy animals, the bulls, which is any where to be found on canvass, and which the painter had often seen in nature—his critics never.

There are many cases in which it might be advantageous to all parties, for a farrier to act under the directions of a medical gentleman; farther, a medical man, either of town or country, desirous, but unable, from various causes to pay a strict personal attention to veterinary practice, might, with advantage, retain a farrier of experience for that purpose. I have often thought that a horse-surgeon, situated within ten or twelve miles of London, where good pastures and convenient straw-yards were to be had, and whither, greased, worn-down, and foul draught-horses, might be sent at a moderate expence, for cure and recovery, would render great and much required services to the metropolis. Last year, a thill-horse, which had lately cost forty guineas, fell under a heavy load, and received considerable damage, in particular a deep wound in one of his knees. With the assistance of the farrier's *infernal* specifics, a most violent inflammation ensued, in which state the horse remained weeks, or for ought I know, months, in a close confined stable; until, besides his original malady, he became greased all-fours. I saw him towards the close of the year, just turned out of the hot stable into a field, in a cold north wind and rain; he laid unable to rise, his knee in the above-mentioned state; his heels graped, greased up to his hocks,

and the horse not worth thirty shillings ! Had this fine, young, and valuable horse, been at first sent to such a situation as I have described, there is no reason to doubt, but that in six weeks his cure might have been complete. On enquiry, I found the owner had been extremely solicitous about the horses recovery ; and yet had I known, and advised him honestly, I am convinced he would not have acted otherwise than he did. So charming a thing it is for a man to have his own way, whatever it may cost him !—Where I so inclined, I could easily fill a thick octavo, with well-attested cases of similar description.

A practitioner settled in the country, and ambitious of extending the knowledge of hippiatric physiology, beside the theoretic aids above described, need not be at a loss for subjects for dissection ; his habits of life also, will necessarily bring him practically acquainted with the horse, in which, to say the truth, some of our veterinarians are very defective ; and herein it was, that Mr. Taplin, an experienced horseman, and a first-rate judge of the statistics of the stable, had an indubitable advantage over most of his brethren. There is, perhaps, no branch of veterinary practice of so material import, as that which relates to indispositions in the feet, tendons, and ligaments of

horses, and, in that respect, mere theory, or even mere surgical practice, will always be, to a certain degree, defective. To have thorough skill in this matter, to judge correctly of the seat of defects, and to detect incipient lameness, in horses, requires, I had almost said a fellow feeling, with an experimental knowledge of the motions and habitudes of those animals; it is in truth necessary, that a considerable spice of the jockey be blended with the veterinarian.

To those proprietors whose inclinations lead them to doctor their own horses, my advice is, that they previously lay in a stock of good sound theory, from the original authors whom I have already particularized: and that they consult, as often as possible, and always in difficult cases, with the medical men of their acquaintance: in truth, they may at least assure themselves, that they are not incurring a greater risk, than trusting their cattle in the hands of common farriers, which in nine cases out of ten, is but to rival the practice of the ancient Babylonians, who, having no medical men, exposed their sick on the highways, to the mercy, good fortune, or the skill of the first itinerant prescriber. In case of the incorrigible stupidity, or bigotted obstinacy of a blacksmith (which last is by no means uncommon) it may well answer the purpose of a gentleman who keeps a considerable num-

ber of horses, and has, on other accounts, much iron work to do upon his premises, to set up a forge. The first expence is trifling, and one regular smith, assisted by a common labourer, would be sufficient. This plan is successfully practised by several gentlemen.

Many sportsmen, liberally disregarding the extraordinary expence, purchase all their drugs at Apothecaries Hall, that they may be at a certainty respecting the quality; yet surely, there are druggists of reputation in London, on whom ample dependence might be placed. It must immediately and forcibly strike every man's apprehension, how much depends, both, upon the genuineness and good preservation of the medicines made use of; and of the little effect, and probable danger of the most judicious prescriptions, where the ingredients are defective, or not to be depended upon. There are various medical articles in which impositions are commonly practised, and for which, insignificant or hurtful succedanea are in use: of these, I hope I shall not forget to caution the reader as they occur.

The advantages of ready-made medicines are obvious enough, in regard to immediate convenience, and the saving of trouble; it were to be wished there were less to counterbalance these; but, it must be acknowledged, the

temptation of putting off bad and unmarketable drugs in these compositions is great, the hazard of their being stale, considerable: and the uncertainty not a little, in point of accuracy, where it may be reasonably supposed such large masses are compounded. Instances enough are not wanting, where the distribution of the cathartic bases has been so irregular, that one ball has acted as a mere alterant, and another as nearly purged a horse to death. Nor would I encourage any man to expect, whatever may be promised, succotrine aloes, or Turkey rhubarb, in these ready-made medicines.

As to quack medicines, never-failing nostrums, drinks, and cordials, that always succeed where every thing else fails, and specifics for incurable diseases—

“Doubtless the pleasure is as great,

“In being cheated as to cheat.”

else how are we to account for the never-failing cullibility of man? Does it never occur to the purchasers of these articles, that a regular medical man must surely have as extensive an acquaintance with the family of drugs, chemical or galenical, and that he is, at least, as likely to make a fortunate conjunction between

them, as the conjurer who advertises his nostrum? Do they consider the blunders they themselves are likely to make in the application? But the quack does his business by the average, or rather by wholesale; he fires at a flock, and the buyer, or his horse, may chance to be of the number. The philosophy of quack medicines lies upon the surface; any man may understand it, and any man may make them; the only difficulty is to get money to advertise them. As to the pharmaceutical part of the business, chuse your disease, then fix upon the most powerful acknowledged specific, clap in an auxiliary or two, *ad libitum*, disguise them adroitly, and be sure make the composition elegant, *prob. est.* - The devil is in it, if specifics wont hit sometimes, and remember, there is no charge for attendance. But after all, the lucky hits, or the merits of certain quacks, cannot be denied, nor are they, even by the faculty. I have been assured, by a surgeon of the first eminence, that *Welsh's Female Pills* are of the utmost efficacy and safety; a political writer of fascinating eloquence, whose shallow and baneful sophistries, a fastidious world, inappetent of all wholesome truths, has admired so much to its cost, has been the eulogist of *De Verno's Vegetable Syrup*; and I can, myself, speak in high terms of *Story's*

Worm Cakes, both as an alterative and vermifuge for children, from repeated experience.

Notwithstanding all which has been repeatedly said upon the subject, and by men much better qualified for the task than myself, it is still necessary to continue giving cautions against the general fondness for medical receipts. Many of these formulæ (particularly those of ancient date) are composed with so little proof of medical knowledge, or rationality, that they appear to be the mere result of knavery or caprice; but granting them ever so well adapted to the curative intention, they must be of extreme uncertain use at best, in inexperienced hands, on account of the professional skill required to form a true judgment of the disease, and the anomalies in the animal system. I remember to have heard a country gentleman congratulate himself, that he could, at last, set the gripes in horses at defiance, since he was in possession of an infallible receipt; but on getting some intimation of the ingredients, I was fully convinced the medicine would, indeed, prove an everlasting cure in some species of that disease. I have heard of many score pounds being offered to a cow-leach, for a single recipe, for which I would not have given the fortunate proprietor, the value

of the horn, with which he administered the drench.

In a little book published under the auspices of that Duke of Devonshire who was the proprietor of flying Childers, there are certain cautions applicable to our present purpose, which appear so rational and necessary, that I shall copy them in the author's own words, with very little alteration or addition. I must premise, that this author complains much of the badness of the drugs purchased by the country apothecaries in his days, which he asserts were the worthless refuse of the London shops: and that he had a horse killed by a farrier's drench; the doctor, it seems, had prepared and boiled another of the same kind, but finding his patient dead, he took home the specific for the next occasion.

“ First, CHEMICAL PREPARATIONS should
“ be had from the most eminent dealers in
“ London, which, if kept well stopped in white
“ flint glasses, will preserve their goodness
“ many years.

“ WOODS AND GUMS. Woods should never
“ be purchased in the piece: in chips they will
“ not last good above a year; in powder only
“ a few months. Preserve these in boxes of
“ tin or oak, in a dry place.

“ SEEDS, ought to be fresh every year.
“ ROOTS AND HERBS, if native, it is highly
“ convenient to cultivate at home. Herbs
“ must be dried annually, roots preserved as
“ woods and gums.

“ BEER, prescribed in horse medicine, ought
“ to be clear: if not, prepare by setting it
“ upon the fire, and dispuming it, or taking off
“ the scum as it rises.

“ WINE prescribed, must not be sharp or
“ pricked, or adulterated; if pure, but only
“ pricked, boil it awhile. The admixture of
“ cyder, honey and spirits, is a bad substitute,
“ and quite contrary to the intention of a cor-
“ dial restorative; the home-made wines of
“ this country are much in the same predica-
“ ment. Good sound beer is always to be
“ preferred.”

I now proceed to treat particularly of diseases and the art of healing, on which head I must beg leave to recal the reader's attention to my professions in the Introductory Chapter to this work, that more may not be expected from me, than I stand engaged to perform. The *res angusta domi* first made me physician in ordinary to my own family, both within doors and without. Should any one be inclined to seek in the moral of the old proverb, the cause of that reasonable share of success

which has ever attended my endeavours, I am content: nay, should the medical men, through motives of either ridicule or professional indignation, think proper to apply to me the celebrated lines of our Epigrammatist, I am prepared to laugh with, or at them, as they themselves shall chuse.

“ Pingunt se cuncti medicos, Idiota, prophanus

“ Judeus, Monachus, Histrion, Raptor, Amus.

OWEN EPIG.

CHAP. II.

PURGATION AND ALTERANTS, BLEEDING,
ROWELLING, SETONS, GLYSTERS, &c.

ON the subject of CATHARTICS, and the rationale of their exhibition, I shall differ in a considerable degree from all authority, ancient or modern, without however being so unreasonable or presumptuous, as to expect acquiescence in my opinions any farther than I can support them by just and satisfactory reasoning; but I may premise with the utmost truth, that no part of the art veterinary, has had a greater share of my attention and practice.

The ancients purged their cattle very seldom, although the cathartic virtues of those drugs, now in common use, were then well known. Their favourite purge for horses, was the pulp of the bitter apple, or the roots of the wild cucumber. The early modern Italian and French writers were bewitched by the old conceit of elementary humours, and elective purgation; but they were ignorant of the use of cathartics, as a mean of promoting the condition of the horse, which seems to have been a dis-

covery appertaining to the system of horse-coursing, and to have received its first general sanction from the authority of the best English writers of the present century. Paracelsus, and several of the writers of his time, affirmed all cathartics to be of a poisonous nature ; nay, Van Helmont supposed he had proved the proposition, by remarking that an increased dose of them occasioned death ; by which species of logic the catalogue of poisons would be wonderfully swelled. The authors of the last century were very cautious in their recommendation of purges, particularly the *Sieur de Solleysel*, who supposed they could never be received into the body of a horse without considerable danger ; and according to whose experience, they had proved so pernicious, that he wished their use entirely discontinued for a substitution of powerful diaphoretics. In the present times, the practice is very rare upon the continent. In Germany, they are much attached to antimonials, and the alterative plan for horses ; in the more Northern parts of Europe, they give warm aromatic powders, with a portion of common salt : I do not find that in France they have ever been much in the habit of purging, (excepting in their racing stables, when subject to the English *regime*) and even *St. Bel* could make the strange assertion, that the question

was not yet determined whether purgatives ought to be at all used in veterinary medicine ; and that we were entirely ignorant of their relation to the organization of the horse !

In declaiming against the violent and inordinate purgatives, made use of by farriers and grooms, our best writers, nowise inimical to purging in general, have overshot their mark, by adopting the following sophistry ; “ the simplicity of the horse’s food, consisting chiefly of grain and herbage, secures him from those complicated disorders suffered, and the necessity of those artificial evacuations required by man.” St. Bel has unwarily echoed these sentiments, not recollecting that long bead-roll of acute and chronic diseases, which he had in another part of his work ascribed to the horse. In fact, those observations apply solely to the animal in his natural state ; domesticated with man, the horse becomes an unfortunate participator in nearly all the diseases incident to his master, and with respect to cathartic aid, the most rational and solid experience has proved its peculiar need, and vast benefit to this animal, whilst breathing the impure air, drooping under the confinement, and fattening upon the luxuries of the stable.

I hold that neither man nor horse, living in a state of luxury (and such is the usual state of

the upper classes of both) can subsist, without imminent danger of the most fatal diseases, unless occasionally and frequently assisted by artificial evacuations. We may as rationally expect a common sewer to remain free and pervious, which is never cleansed. The ancient Egyptians so much favoured this opinion, that they purged themselves weekly, and the Romans even out-did those; but without being misled by its excess, we may derive infinite advantages from rationally pursuing the principle upon which they acted: we may thence be enabled, in great measure to ward off the myriads of evil consequences accruing from obstruction, the diseases proper to which, according to the divine Hippocrates, are of all others, the most fatal to the human body. By regular, timely, and sufficient evacuations, with a very moderate attention to regimen of diet, which however irksome at first, would from habitude become even delightful, I have the fullest conviction, that most of those troublesome and ultimately dangerous diseases generally held incurable, might be subdued. I will without hesitation instance the GOUT, which most patients hug as their dear delight, and keep by choice; wisely succumbing under present pains, from the apprehension that still worse might ensue upon a change; a most unnatural dialectic,

the early general adherence to which would have eternized the savage state. It is precisely thus, that men act with an antiquated, corrupt, and crazy body-politic, and with the ultimate success merited by such genuine idiopathic insanity. I refer gouty patients to the Zoonomia; sensible however that most of them will be better satisfied with the sage advice of that forensic orator, who lately pronounced, that God and Nature had decreed the gout should never be cured: it ought to be remembered, that it is the profession, and invariable habit of those gentlemen, to think, act, and speak, in all things, and all cases, by precedent.

According to the constant tenor of my observation, it is safe and good practice occasionally to purge horses of all descriptions, confined to the diet of the stable, not only for the purpose of promoting their condition of wind and speed, but also with the intent of obviating those mischiefs, which never fail to succeed overlaid intestines and obstructed humours. Whether it be from peculiar conformation of the intestines, or his horizontal posture, the horse is universally liable to retain accumulated excrement; and many instances of the sudden death of horses have happened from no visible cause, until upon dissection, balls of very large size, and of nearly

the hardness of marble, have been found in their bodies. Dried and hardened balls of dung will be often seen to fall from a horse, notwithstanding he may have had a diarrhœa upon him for some time, nor will the spontaneous looseness always clear him from the indurated and obstructed excrement without artificial helps. This invariable tendency to accumulation on horses at hard meat, together with the inspissating nature of the aliment itself, form the pre-remote cause of blindness, staggers, pursiveness, grease, jaundice, cholic, and various other kindred maladies, which make such constant havock in our stables, and from which they can by no other means be freed, but by timely prevention.

The intentions of purging for condition, or to enable the body to undergo extraordinary exertion, are first to unload the intestines of impurities, and to free the stomach of any obstruction which might impede the digestive faculty; to lessen the quantity of blood, and attenuate its quality, that it may be able to pervade easily the fine emunctories of the body with that increased velocity, which must be the natural consequence of violent exercise; and lastly, to increase the ratio and capacity of fibrous extension, by relaxing in a certain degree the whole system. Hence the necessity

of physic for every saddle horse, which is expected to be always ready with his best performance, and the still greater need of it for the race-horse, whose blood and humours, without previous evacuation, would be in too copious and dense a state, to endure, without danger of inflammation and obstruction, that severity of exercise which is necessary for his perfection. It is possible, no doubt, to train horses without physic ; but we always find their legs and sinews complain first, and the best grounded experience is on the side of the purging system ; from which, moreover, when judiciously conducted, no sinister effects are ever known to result. I have heard of colts put into training without being previously purged, which, after the first sweat, lost their appetites, and in a short time became covered with eruption : they were immediately got through a course of physic, and afterwards resumed their exercise without farther difficulty or danger.

ALTERATIVES, or those medicines which relax and attenuate by slow degrees, and which must be continued for a considerable length of time, are by no means to be preferred in the present intention, but ought rather to be confined to cases of a depraved or morbid state of the humours. I well know that Bartlet was a warm advocate for the alterative plan ; but how

high soever that author may deservedly rank as a veterinary writer, it must be observed that his knowledge was confined merely to the medical and surgical branches, and that in the equestrian, or that which relates to the exercise and management of horses, for sport or expeditious service, he appears to have had little or no experience; a remark which I have already made of certain writers beside, in other respects very able, for the benefit of the discriminating reader. There is something in the operation of a brisk, and well-adapted purge, which, by suddenly easing the horse's body of an oppressive load, gives that cheerfulness to his spirits, energy and vigour to his muscular functions, and glossy burnish to his skin, which are precisely what we want, and can obtain in perfection by no other means; it finishes the ENGLISH horse—the paragon of the species—the conqueror of the world!

Many have been the advocates for the BLEEDING system, with the view either of the prevention of diseases, or of promoting the condition of the horse: nothing can be more unavailing and fallacious. Bleeding can have no effect in cleansing the bowels, the grand object; and its efficacy in attenuating the humours is very small and temporary; in fact, its evanes-

cent and specious good effects, have often the ill consequence of preventing measures of a more salutary and radical tendency. Phlebotomy is often induced as a habit upon a horse, which it becomes afterwards dangerous to discontinue; an usage sufficiently improper on the score of its want of necessity; it ought to be reserved, whether in horse or a man, for those occasions in the preternatural or morbid state, where it may be specifically required. DIURETICS stands so nearly in the same predicament, that it is unnecessary to enlarge. They cannot have the beneficial effects of a purge, but the latter will, in general, perform all the benefits of diuretics.

The danger of purging horses, subsists only in the imaginations of the inexperienced, in the ill choice of drugs, or in their injudicious administration. The drastic, or rough and violent purges, and such, on account of their cheapness, are generally in use for horses, of course make them sick, irritate and convulse their bowels, and occasion frequent violent strainings, after voiding the shower of excrement; strong mercurials have ever these effects. Such appearances lead to the erroneous conclusion, that a horse cannot be purged with safety; but the mild or eccoprotic purges have no such ill effects, on the contrary, they give a horse the

least possible disturbance, his only punishment being the mere swallowing the ball or drink, and the temporary deprivation of solid meat; and yet these confer much more lasting benefit than the former; an opinion of Gibson, which in scores of instances I have seen verified. The chief of these innocent, and at the same time efficacious cathartics, equally adapted to the salutary purpose of cleansing, exhilarating and invigorating the human and brute body, are, ALOES SUCCOTRINE, TURKEY RHUBARB, and the NEUTRAL SALTS; medicines so exquisitely fitted by nature to the intention, as to leave us nothing to desire. I cannot avoid mentioning here, that I have repeatedly seen very rough drastic effects from senna, particularly if the patient be very costive, which is reckoned among the milder purgatives. The last instance I knew was of a pregnant woman, to whom an old nurse prescribed senna, which, although the dose was moderate, had so unfavourable an effect, that a miscarriage was apprehended in consequence. I have been since informed of similar instances.

Since writing my first Volume, where, in conformity to the opinions of my respected masters, Gibson and Braken, and from the results of my own experience, I entered my protest against the use of Barbadoes aloes, I

have conversed on the subject with several veterinary practitioners ; they agree with me as to the superior virtue and mildness of the fine aloes, but complain of its backwardness of operation upon the horse, and of the largeness of the quantity required ; for such reasons they have been induced to continue the use of the common ; but to obviate its drastic effects, it has become the custom to exhibit it a few drachms at a time, which method it seems has succeeded. I have not however seen any reason to depart from my former opinion ; and whatever pecuniary advantage may result to those who vend medicines, by purchasing an inferior kind, such reason neither can, or ought to have any weight with those, who physic their own cattle. For my own part, I have experienced no difficulty hitherto, in purging even dray-horses, either with succotrine aloes or Glauber's salts, As to the latter, or the purging salts, I know of none of our veterinarians who have made use of them, they advert to the difficulty of administering them ; nor do I recollect any author who recommends them alone as a purge. But I have been many years in the constant habit of purging horses with salts, and with never failing success. The saline purges appear to me to debilitate the animal body by their operation less than any others, and to re-

frigerate the humours more, they are specific in certain cases, and in fact the idea of elective purgation must be allowed to a certain degree; for instance, in the case of the absorbent magnesia, which invariably attracts acids, and from the combination results a neutral purging liquor. Many horses require no other purges whatever than salts, and by the use of them may be kept in the first style of condition. They are also excellent alteratives, as one might fairly presume previously to experience, by the analogy of the salt marshes, where horses receive so much benefit from the peculiar saline quality of the water.

Salts usually prove a powerful diuretic to a horse, and are specifically calculated for such, as from high-feeding, and standing much in the stable, are oppressed with a redundancy and super-agglutination of the fluids, causing inflamed eyes, swelled legs, turbid urine, which, if long neglected, seldom fail to terminate in the most fatal diseases. This purgative is superior to all for producing a fine glossy coat and high spirits. The salts seem to act upon the contents of the intestines, and the animal humours, by a certain peculiar power of dissolution, rather than by the accustomed stimulus of other purgatives; and if they do not always produce those liquid ejections from the horse, which result from

the more powerful cathartics, they bring away an equal quantity of dung in a softened state. Horses, which have had their regular aloetic purges, but which, from hardness of constitution, or defect of exercise, have become gross and pursive, and at a time, perhaps, when brisk services may be required of them, are speedily and safely put in order, by a short course of salined water. But I will make the eulogium of this cheap and valuable article of the *materia medica*, which deserves the utmost attention of all sportsmen and keepers of horses, in few words, lest I should be tempted by my enthusiasm, to write a *Currus triumphalis* of Glauber's Salts ; or lest my reader should begin to suspect, that in imitation of the cow-doctor mentioned in the former chapter, I should, at last, recommend salts even as a bracer. The discerning reader will smile here, at his supposed discovery of my share of the common weakness. All doctors, it is well known have their hobby-horsical remedies, and methods of treatment, and even peculiar phraseology. It would be indeed hard upon a writer on horses, not to be permitted to ride his own proper hobby. We have all had them. Thus, Markham's favourites were oil of oats, and pilgrim's salve ; Burdon's, a turnip poultice ; Dr. Bracken's, cordial balls ; Bartlet's nitre ; Pro-

fessor Taplin's high sounding words, stock phrases, and treble refined sense ; and those of Dr. Lawrence, the last, and least of the catalogue, a loose stable, and *Sal mirabilis Glauberi*—Glauber's wonderful Salt ! God rest the soul of Daddy Glauber ! I am sure all the druggists, at least, will answer and say—Amen !

It hath been hitherto the general custom to exclude DRAUGHT CATTLE from the benefits of cleansing and evacuation, by cathartic medicines, but, in my opinion, even without the appearance of reason ; for, from the general gross and surfeiting nature of their food, and the slowness of their motions, encouraging a glutinous, sluggish, and viscid state of the blood, none of the species are more in need of artificial helps ; in a defect of which, with the intent of prevention, originate those frequent fits of the gripes, staggers, blindness, pursiveness and grease, to which stuffed and pampered cart and coach-horses are so notoriously subject. Salts are particularly useful with this sort of horses, and the load of dung and urine which I have seen discharged by them from the body of a dray-horse, has been so great, that I have wondered how the intestines of the animal could possibly contain it.

I have often heard the complaints of private families in the country, who keep a pair of horses, that they are a perpetual source of trouble and uneasiness ; they are either foot-fundered, heavy-eyed, greasy, or so pursive and unwieldy, as to be covered with sweat upon the least extraordinary exercise. Much standing within, and strong nourishment, must, of necessity, produce all this in the gentleman-horse, even as his master and mistress acquire the gout upon the same principle. Such horses should have, at least, four or five doses of physic in a year, with alterants in the interim, if required. It is to no purpose to talk of bringing on the habit of physic ; make your election, the habit of physic, or the habit of sickness ? Their feet should be well-soaked in water twice a day ; they should stand loose in their stalls, and, if it would not give Mr. John too much trouble, or interfere with his attentions to Molly, his horses should have a daily walk of some hours.

Enough has been already said on the regular cleansing of sporting horses, farther, it will be sufficient to add, in general, that every description will be benefited, and their worth enhanced, by a purging course twice a year ; and the old periods of spring and autumn are certainly as proper for the purpose as any

other. Each course may consist of three regular doses of aloetic physic, or two, or of one only, preceded or succeeded by salts; or of salts alone, according to the constitution and present condition of the horse.

The signs of a want of purging physic, from the common cause, over repletion, are so obvious, that it is needless to repeat them; but occasionally, although rarely, a lean and hide-bound appearance may indicate the same want; the digestion may have been injured, and the appetite depraved, by unwholesome food; the intestines may be choaked up with slime and filth, the proper nidus of worms; horses in such a state acquire strength, and thrive much after physic. But it is necessary to be very cautious in purging weak and delicate horses; in fact, it had always better be referred to men of professional knowledge. An inflammatory state of the blood always forbids purging; it is absolutely necessary to wait until the fever shall have ceased. In case of much flesh, excessive fulness, heat and costiveness, begin to reduce the subject two or three days previous to the exhibition of a dose of physic; warm bran mashes, salined water, and walking exercise, will in general, be found fully effectual without bleeding, which ever ought to be reserved for cases of absolute necessity. There are horses

of habits so naturally costive, that a double dose will scarcely have any material effect upon them ; no rash attempts should ever be made upon these with drastic purges, which may be suddenly attended with fatal effects. They are best treated with a course of salts, or alteratives, which have a gradual operation ; or laxative glysters may be exhibited two or three days previous to a dose of physic. The old maxim ought not to be forgotten, to forbear purging in extremes of heat or cold, or in wet weather.

Purges are seldom given in a liquid form, but in balls, to hide the ill taste ; these are of an oblong shape, and the size of a pullets's egg. It may be of dangerous consequence to attempt to deliver them too large, particularly those balls which are rosined, and neatly made up *secundum artem* ; with respect to my own old fashioned method, there is less danger as well as less neatness. I always form a purge into two balls, frequently into three, merely rolling the composition up in a piece of old newspaper, twisted at each end, and smearing it with sweet oil.

Very numerous have been the accidents, from the too large size and hardness of horse-balls: Hephestion, the race-horse, according to my remembrance, was choaked with one, and very nearly killed. Some years since, a

horse was choaked by a stale ball, at the infirmary of a celebrated veterinary surgeon, who performed on him the ancient operation of bronchotomy, but without being able to save the patient. Another surgeon, in Berkshire, [I think a Mr. Deane) had better success; saving the life of a horse by the same means, which had been choaked by the accidental slipping down into the gullet, of a small apple, given him by a boy.

The horse being prepared the day before, by a bran mash or two, should have his physic in the morning, fasting, between five and eight as the season may suit. Should the animal be very gross, foul, and full of blood, and any danger be apprehended from his state of body, a pretty large mash of bran, without corn, may be given him in the middle of the preceding day, only a small lock of hay at night, a small bran mash early in the morning, and his physic in two hours after. Mashcs also are of great service in the following case: A horse in a very unfit state for a journey, from having been kept high without exercise, may yet be wanted in a few days, a time too short to attempt to prepare him by physic; give a large bran or pollard mash at night, instead of corn, with little or no hay, and two hours walking exercise in the morning fasting, for four

days, and white water if the horse will take it; this will make him empty himself very much, amend his appetite and wind, and increase his powers of performance. Such a course occasionally will benefit horses of this description.

In the delivery of a ball, an iron instrument should seldom be made use of, since it is a rough and terrifying practice of which an adroit and skilful person has no sort of need. The tongue of the horse being drawn, and held out of his mouth on the off-side, the operator receiving the ball or roll from a by-stander, places it lengthwise between his fingers and thumb, which being stretched out, he delivers it with a moderate jerk over the root of the tongue; when letting go the tongue, and placing his hand under the jaw, he gently and moderately elevates the head, in order to watch the passage of the ball down the gullet. If it has been plainly distinguished passing down, another ball may be immediately given, should one remain. But some horses will retain them obstinately a considerable time, in which case a little water may be given, or even poured down with the horn, the swallowing which ascertains the situation of the ball. In giving a drink, the horse's head should be held up with a forked stick with blunt points, kept for that purpose, but by no means with an iron fork, for fear of accident; a

noose to receive the fork being placed in the mouth over the tushes. Mr. Taplin recommends to draw up the horse's head with a pulley, according to ancient fashion, which I think hardly so safe as the common method, since if a stupid fellow hold the pulley, and an accidental regurgitation should happen, it is probable the horse may be held fast until he is choaked. I have however the utmost pleasure in declaring that I esteem the account of administering physic in Mr. Taplin's Compendium, as one of the most rational and useful which is any where to be found, and which bears the indubitable marks of sound judgment and practical experience.

I have sometimes known, even in stables where one would not have expected such an omission, that no DRENCHING-HORN has been at hand, in lieu of which, a glass bottle is always the dangerous substitute. Every groom should be provided with a good horn, narrow in the spout, and wide in the belly, which will hold full half a pint; and much care should be taken that too large a quantity be not discharged into the horse's gullet at once, or too suddenly, or that one go-down do not follow the other too hastily, to alarm and excite him to cough, more especially if he be short breathed and faint from indisposition; but

sick or well, he ought in the case of giving medicine, to be turned about with the greatest care, and treated with the utmost tenderness and patience. In all veterinary management, our grand dependance is in PATIENCE.

Immediately after the horse shall have swallowed the dose, you may allow him to take two or three go-downs of soft water, blood warm, and to eat a lock of hay. Small quantities at a time of clean picked hay may be given him throughout the day, and two or three mashes of sweet bran and ground oats, which is the proper diet whilst the physic is in operation. Should it be a laxative drench of the neutral salts, and other articles of quick operation, his purging may begin in less than twelve hours; but an aloetic purge, the slowest of all others, will lie in his body double the time: beginning to operate the following morning, its effects may continue twelve, twenty-four, thirty hours or upwards, according to the power and quality of the medicine, and the existing state of the horse's body. Much has been said and written about horses being sick, griped, and off their appetite, during the operation of a purge, and of their refusal of warm water, and of the necessity of substituting cold, and various other infelicities, none of which, I have hitherto been so fortunate, as to experience.

Good aloes, rhubarb, or salts, the quantities being judiciously apportioned, and the body of the patient in a fit state for their reception, never gripe or nauseate. As to the unwillingness to drink, noted by authors, I know nothing about it, having always found that the medicine has rather made the horse thirsty, and that far from refusing, he would drink warm water sooner than at other times; but in case of refusal, I see no sort of difficulty, and should instantly order half a gallon to be poured down in horns, and repeated every hour, until a sufficient quantity should have been delivered. Cold water should NEVER be allowed. Instances may be produced of horses which had taken coarse Barbadoes aloes, made up with a large quantity of common rosin, and I know not what cheap horse-doctoring or sale articles, being killed outright by a plentiful drink of cold water, the body swelling enormously, and appearing as if the animal had been destroyed by poison. With regard to appetite upon these occasions, I have been frequently obliged to check the liberality of the groom in dispensing his mashes; but more particularly after the physic has been set, when I have found the appetite of the horse so keen as to require restraint, lest the quantity should exceed his digestive powers. It is a property

of good aloes to increase the appetite and promote digestion; the aloe is also an excellent diuretic, and, as I have more than once experienced, scents and colours the urine; a discharge of which is sometimes promoted in a very short time after taking the medicine. My method of taking aloes is to enclose it in pellets of chewed bread, by which method the pill has no taste of the aloetic bitter; a single pill or two will perhaps serve for common occasions.

A horse which usually stands unclothed, should have a sheet thrown over him during physic. The habitual temperature of air in the stable may be preserved, with the caution of obviating all partial currents, more particularly should the weather turn out cold or wet. In case of wet, the horse should not stir into the open air, or where rain may be blown upon him. For want of better convenience, turn him about, and walk him up and down the stable, if necessary, to quicken the purge. If the weather permit, put on his hood, and take him out two or three times in the day, half an hour each time. The purge operating freely, only walk him; if otherwise, let him trot a little, but gently, and at his ease, the rider by no means hurrying, but allowing him *his own time* to stop during his ejections. In case

of a cold northerly wind, the less he be kept out the better; and additional clothing will then be needful. The ceremony ends upon the physic being set, namely, when the excrement shall have reassumed its habitual or natural consistence. After the setting, from a week to a fortnight of walking, or very gentle exercise, ought to precede labour. No horse will bear more than one regular dose in seven days. Prescriptions for accidents, during purgation, from cold, bad drugs, or other causes, will be found among the succeeding formulæ.

No. 1. The REGULAR COURSE OF SALTS, for a hack or hunter, is from twenty to twenty-four ounces the dose, the three doses taking up somewhat more than the usual time. Should the weather be fine, and no danger of wet, the horse may be moderately ridden, during this physic, but no risks of taking cold ought to be incurred, nor any cold water allowed. My method of giving salts, is to prepare the horse with two or three warm bran and corn mashes, and to keep him without water, until he become thoroughly in need of it; then take a pail-full blood warm, and infuse four ounces of salts, previously and thoroughly dissolved, in half a pint of boiling water; should the horse refuse, have patience, and drouth will in no great length of time ensure his compliance. Repeat this as

convenience may serve, until the dose shall be complete, which may be in two days at farthest. It is necessary to observe, that the salts should be kept carefully corked up in wide mouthed bottles; for although every one knows, that upon exposure to the air, they gradually precipitate into a powder, yet all are not aware that thereby about half their efficacy is lost: again, if instead of properly dissolving the salts, as directed, they are carelessly thrown into the pail of water, to melt at leisure (which nine grooms out of ten to save trouble would do) they will, great part of them remain undissolved at the bottom of the pail, or again shoot into crystals from the coldness of the water, and be thrown away. Not only salts, but aloes, jalap, rhubarb, and other drugs, ought to be carefully preserved from exposure to the air. But to these *minutiae* the owner of a horse must look himself, or at least be very precise and peremptory in his directions, unless he should think it the least evil, to incur the risk of perpetual disappointment. For very large, or very gross horses, the dose of salts must consequently be increased, and the quantity will be best regulated by the experienced operation. I must remark, that in this, as well as every other medical article for veterinary use, I find myself amply compensated, by purchasing the best

kind; and therefore recommend that the best Glauber's salts be used, in preference to any Lymington, or other cheap substitute, to be had at the druggists. Very frequently, a single dose will put a hackney into excellent condition; an example of which I have now at hand in a trotting mare, the property of a worthy and respectable friend: this mare was purchased from the straw yard, as rough as a bear, and rather low and out of spirits; a single dose of about twenty ounces, gave her a skin like a racer, set her instantly to thriving, and put her into a condition to go through her work in the best style.

No. 2. A COOLING PURGATIVE DRENCH, of quick operation. Take the infusion of four ounces of cremor tartar, in one pint or more of boiling water, which has stood three hours or longer, and been frequently stirred; strain it fine, and mix therewith, or dissolve therein, upon the fire, six ounces Glauber's salts; add from four drachms to one ounce jalap, or half an ounce succotrine aloes, according to the strength required; a gill of strong peppermint water, and a sufficient quantity of warm gruel, or ale, well sweetened with honey, or treacle. Lenitive electuary and syrup of buckthorn, may occasionally be joined.

No. 3. The ALOETIC PURGE, for a hack, hunter, or race-horse, commonly used by myself. The finest succotrine aloes, well powdered, from twelve to fourteen drachms, cremor tartar an ounce or two; ginger, fresh and finely grated, a tea spoonful; fine sallad oil a table spoonful; make the mass with treacle or syrup of buckthorn, and sifted oat flour, into two or three balls. I formerly, on the credit of some old writers, used jalap by way of quickening the operation of aloes; but it has lately been averred, that no quantity of jalap will purge a horse. It is my duty, however, to observe, that I was cautioned by an eyewitness, against placing too great a dependance on the accuracy of certain experiments. Long experience has convinced me that the fewness of the ingredients by no means detracts either from the efficacy or safety of this purge.

No. 4. The ALOETIC PURGE, from Gibson. Succotrine aloes ten drachms; jalap and salt of tartar, of each two drachms; grated ginger one drachm; chemical oil of aniseeds thirty drops; syrup of buckthorn enough to form the ball, which roll in liquorice powder or flour.

No. 5. I have really forgotten the precise quantity which I was accustomed to give as a purge, to cart-horses of the largest size; but

with such, an essay might be first made with No. 3, the strength of it being increased, in a future dose, should it appear necessary, to two ounces aloes, but beyond that degree of strength I have no experience; nor should I think an addition to it safe for any horse, unless indeed the case should require a drachm or two of calomel; that quantity not purging sufficiently, recourse had better be made to salts as an alterant. In dropsical or other cases, where drastics may be absolutely necessary, I believe nothing is more safe and effectual than a small addition of scammony, in its pure and natural state, to succotrine aloes, with a sufficient guard of salts, soap, or oil; but such potent articles require medical knowledge and judgment in the prescriber.

No. 6. The RHUBARB PURGE, from Gibson. Finest succotrine aloes one ounce; Turkey rhubarb, in powder, half an ounce; ginger, grated, one drachm; make the ball with syrup of roses. This is highly recommended for delicate constitutions and poor feeders;
OR,

No. 7. Fine aloes one ounce and two drachms; myrrh, fine powder, half an ounce; Turkey rhubarb two drachms; saffron one drachm; make a stiff ball with syrup of roses or marsh-mallows; add a small tea-spoon full

of rectified oil of amber, roll the ball in liquorice powder.

After looking over all our other authors, I find Gibson the original authority for cathartic forms.

No. 8. PURGE OR SCOURING, for a gross and foul coach or cart-horse. Succotrine aloes one ounce; jalap one ounce; myrrh, finely powdered, half an ounce; cremor tartar one or two ounces; Castile soap half an ounce; ginger, finely grated, two tea-spoons full; best salad oil one large spoon full; make three balls for one dose, with syrup of buckthorn and liquorice powder, or flour.

No. 9. MERCURIAL PURGE for ditto. Add to the above two drachms calomel, or if the constitution and habit should require it, half an ounce.

No. 10. MILD MERCURIAL PURGE. Add two drachms calomel to No. 4.

Notwithstanding the variety of articles offered as above, fine aloes may be given by itself, with all manner of safety. The following is a most efficacious and cooling purge: succotrine aloes, from ten to fourteen drachms, prepared nitre in powder, five or six drachms to one ounce, ball with sweet oil. Nitre and oil are the best correctives of Barbadoes aloes.

The observations of Mr. Blaine on the me-

thods of purging horses, and the quantities of drugs required, seem rather to indicate his deference to some favourite authority, than his own practical acquaintance with the subject. They may perhaps have one, not uncommon effect, which is to excite the smiles of the experienced groom, and veterinarian. Mr. Blaine, very rationally, but unfashionably, decides in favour of succotrine aloes, and yet with these, far the most mild, makes the absurd assertion, that “the strongest horse should never have
“ more than eight drachms; few require more
“ than six; many are purged with four.” The real state of the fact is, that the most delicate horse remains frequently unmoved by an ounce of succotrine aloes; and it is probable that such an one was never injured in the slightest degree, by taking twelve drachms. A veterinarian of eminence, and of the new school, lately testified in Court, “that an ounce and half,
“ to three ounces of the best aloes, might
“ be given with safety to a horse.” The fatal mischiefs of too strong cathartic doses are full as frequent, as Mr. Blaine has stated, but he has erred widely, and reasoned without judgment or discrimination on the matter. To substitute harassing exercise for due quantity of purging physic, or to worry a horse about, with physic in his belly, will seldom be found a sa-

lutary or efficacious practice. There is moreover an inconvenience and loss of time in the exhibition of too small doses; which, even on repetition; according to the late fashionable adoption of Bartlet's proposed plan, frequently fail, or operate only to the ineffectual teasing and disquiet of the horse, and disappointment of his owner. A physician of eminence has taught that the variety of articles, increases the cathartic effect; this, of which I have no experience, being granted, jalap, and certain other lately supposed inefficacious medicines, may yet have their specific use. With respect to the beneficial effects of rhubarb on horses and cattle, I have observed them too long, and too attentively, to be for one moment at a loss on the subject.

Should a purge not operate at a proper time, either from badness of the drugs, or cold taken, the horse will hang down his head and refuse food, appear swelled, heave in his flanks, and frequently throw up his tail without ability to evacuate. In a slight case of this kind, give the size of a pullet's egg of cordial ball, in three pints warm gruel, and repeat it at night and the following morning; in the interim give salined water, blood warm, made as before directed, *i. e.* the solution of four ounces Glauber's salts, to a pail, or three gallons of soft

water. Walking exercise, if fine weather, well clothed, the horse not being ridden. Or, should the case be more serious, and the horse much swelled or griped, take balsam of Peru and capivi, of each half an ounce, incorporate them with the yolk of a new laid egg; camphor one drachm, dissolved in a small quantity of Holland's gin, or other spirit, juniper berries and aniseed, powdered, half an ounce each; unrectified oil of amber two drachms; make a ball with syrup of marsh-mallows, and roll in liquorice powder. Give plenty of warm gruel and water. This last I have taken on authority, but I should be more inclined, in the case, to exhibit a few ounces of tinctura sacra, or elixir proprietatis, in warm gruel, every six or eight hours. If the additional aid of a glyster should be needed, use the following; thin water gruel three quarts, sweetened with six ounces coarse sugar, and well mixed with six ounces salad, or linseed oil; if easily to be procured, instead of water gruel, make use of a decoction of mallows, pellitory, mercury, chamomile, or such as can be obtained, each a large handful, with bay-berries and sweet fennel-seeds, each one ounce, in a gallon of water, boiled to three quarts. As the horse recovers, give a few malt mashes.

In case of SUPER-PURGATION, or excessive

working of the physic, the very common consequence of the use of plantation aloes, or a too powerful mercurial dose, give the following, a quart at a time, with the horn, in the course of the day: simmer gum Arabic and Tragacanth, each four ounces; juniper berries and carraway seeds, bruised, three ounces; ginger half an ounce, in five quarts of water, until the gum shall be dissolved. Gruel made of boiled rice is excellent in this intention, given either with the horn or in the horse's drink, and the rice by way of mash. Or, cordial ball in warm ale. Or, prepare a decoction of chamomile, worm-wood, fresh aniseeds, and saffron; to three quarters of a pint of this, warm, add a pint of fine old Port wine, in which has been dissolved one ounce diascordium, to be given every three or four hours. The horse continuing to purge, and to eject even the very mucus and lining of his bowels (an extremity which I have witnessed sufficiently often) the foregoing remedies must be persevered in, with the additional help of restringent and nutritive glysters.

The RESTRINGENT GLYSTER. Either pomegranate or oak bark two ounces; red roses, green or dry, a handful or two; balustines half an ounce; boil in two quarts of water to one, pour off clear, and dissolve in the de-

coction four ounces diascordium. To be repeated. OR, The STARCH GLYSTER, from Mr. Clarke. Starch jelly, or infusion of linseed, one pint; liquid laudanum one ounce, or two table-spoonfuls; if inflammation be apprehended, substitute for the laudanum, twenty or thirty grains opium, well rubbed and dissolved: I think the quantity (one pint) rather too small. Broths are used in this case, and flour or rice milk, strained, but oils are too relaxing; yet, the coats of the intestines being abraded, Bartlet recommends mutton suet boiled in milk, both as a glyster and drench, one pint every three hours. Suet, four pounds to one quart milk. Should the case have been so dangerous that the horse remain weak, and a restorative course be required; persevere in the following a few weeks. Loose stable, use of a field or yard by day, where he may be kept from water. Make a strong decoction or infusion of oak-bark, gentian, carduus benedictus, or the male sow-thistle, and Roman wormwood, and keep it bottled for use: give half a pint to a pint in every pail of water cold. Frequent rice and malt-mashes, cordial ball in ale. Ox or sheep's gall, half a pint in ale, milk warm, twice a day,

The following observations on glysters, I learned from the respectable authorities of

Gibson and Clarke, previously to my experience of their truth. A syringe should never be used, as the discharge alarms the horse. The proper apparatus is a pipe and bag. To a large ox-bladder fasten a pipe of the length of fourteen or fifteen inches, made of box, or any wood susceptible of a smooth polish; in size, about an inch and half diameter next the bag, and of a gradual taper to the extremity, where the thickness ought suddenly to increase, and be rounded at the point; let the perforation of the pipe be large enough to admit the end of a common funnel, for the purpose of pouring the liquor into the bag; certain ivory pipes in use, are apt to wound the gut. Place the horse, if convenient, with his hinder quarters upon the highest ground. In case of hardened balls of excrement, always back-rake, with the smallest hand to be procured, well oiled and nails pared, previously to the administration of a glyster. Mr. Taplin, although apparently of great skill in all matters of medical administration, has, I think, very much failed in decrying the advantages of thus extracting the excrement, frequently a matter of the utmost necessity in both brute and human bodies; in the latter, it is usually performed with a silver instrument, formed like a marrow spoon. It must surely be a great point gained,

where we can make direct application to the seat of the complaint; as for instance, to the blood vessels by phlebotomy, in a state of plethora and inflammation. In a laxative glyster, the quantity may be as much as three quarts; but in those of a restraining, anodyne, or nutritious kind, which are to be retained, from a pint to a quart is fully sufficient. I have already, in Volume I. page 60, entered Gibson's excellent caveat against the too liberal use of purgative articles, particularly coarse aloes in glysters, and have only to recommend, in general, in this intent, oils, salts, lenitive electuary, and other mild laxatives. Let your liquid, in respect of warmth, be as nearly as possible of the common temperature of blood, which being discharged with all due caution against alarm, hold down the tail a few minutes. Glysters thus carefully given, create so little uneasiness to a horse, that they may be repeated very often, if necessary, without much trouble. I cannot avoid repeating a practical remark of Mr. Clarke, so much I feel its force. It will happen in colics, that horses drop, frequently, dribblets of excrement, apparently loose; at the same time the colon may be loaded with *scybala*, or hardened dung-balls. The grooms and farriers, like troublesome and conceited nurses, judging merely

from appearances, and habitually sparing of labour, and jealous of novelty, decry the use of glysters as superfluous, but on their repetition, are surprised at the quantity and state of the discharge. The veterinarian and jockey, in all cases, may *hear* the groom, but must consult the reason of the thing. I repeat it after St. Bel, stable-people, in general, cannot be trusted even with a relation of facts; their obstinacy and conceit ever hold an exact pace with their ignorance. Glysters are of immense service, equally in the intent of relaxing, astringing, and comforting the intestines; and the animal body may be preserved alive, and nourished by these alone, for a considerable period, where it may be impracticable to receive any sustenance in the regular way.

THE COMMON GLYSTER. Two or three quarts thin gruel, salad oil half a pint, coarse sugar, or common salt, six ounces. To render it more emollient, a decoction of marsh-mallows, ground ivy, chamomile, and fennel seeds, may be substituted to the gruel.

LAXATIVE GLYSTER, add to the above eight ounces Glauber's salts. Or, an infusion of two ounces senna in boiling water, and four ounces of syrup of buckthorn. Or, Bitter apple half an ounce, bayberries and aniseeds bruised, one handful each; salt of tartar half

an ounce, syrup of buckthorn four ounces. The bitter apple, berries and seed, should be boiled a quarter of an hour. Or, instead of the bitter apple, an ounce or two tincture of jalap.

NUTRITIVE GLYSTER. Thick water gruel. Or, broths made of sheep's head, trotters, or the like, but not too fat. Milk-pottage. Rice-milk strained, with warm aromatic seeds if necessary.

DIURETIC GLYSTERS. Soap four ounces dissolved in two quarts of warm water, salt one handful. Or, one ounce Castile soap, two quarts water, Venice turpentine two ounces, well beat with the yolks of two eggs. Or, in a strangury, to be repeated: Venice turpentine from two to four ounces, beat up with eggs, add by degrees, two quarts decoction of marsh mallows, parsley and ground ivy, or either, in which from two to four ounces nitre has been dissolved: oil half-a-pint to one pint, and occasionally one ounce Bates's anodyne balsam.

The **CORDIAL BALL** was first introduced by Markham, who styles it the "mirror and "master of all medicines," and pretends it will cure all inward diseases. Every writer, almost, has made some variation from the original, affecting to have his own cordial ball. Mr.

Taplin, I think, has not been fortunate in his attempted improvement of Dr. Bracken's ball. I will match Bracken's *turmeric*, against Taplin's *Turkey figs*, over the course, for the price of both articles. There is moreover something tautologous (if I may be allowed the expression in medicals) in heaping anisated balsam upon aniseed, and oil of aniseed; beside introducing anisated balsam of *sulphur*, after oorrecting Bracken for the use of brimstone. But *hæ sunt nugæ*.

BRACKEN'S BALL. Aniseeds, carraway-seeds, and greater cardamons, fine powder, of each an ounce; flower of brimstone two ounces; turmeric in fine powder, one ounce and a half; saffron in powder two drachms; sugar candy four ounces: Spanish juice dissolved in hyssop water two ounces; oil of aniseed half an ounce; liquorice powder one ounce and a half, wheat flower a sufficient quantity to make it into a stiff paste, by beating all the ingredients well in a *marble*, not a brass mortar. This is the common cordial ball, and I believe deservedly most in repute.

I refer my reader to what I have said on the abuse of these balls, in Vol. I. Stable Economy, and besides have several little useful items in my memory, very much at his service. In the first place, care ought to be taken that

the seeds be fresh and good, and by no means old shopkeepers, and that the oil of aniseed be genuine, instead of one half oil of almonds; farther, that the mass be kept in a bladder, or a gallipot well secured from air, or damp; and lastly, out of the reach of two-legged depredators. I have known stable-lads, and their sweethearts, as fond of cordial-ball, as Turks are of opium: restorative, I suppose.

The MALT-MASH from Markham. Upon a peck of ground malt, pour a gallon and half boiling water, stir frequently; in about half an hour, the liquor will be sweet, and may be given to a horse milk warm; this is very nourishing, either by itself, or mixed with gruel of rice or oatmeal.

RowELS, or as the French call them Fontanelles, are intended to answer the same end as issues in the human body, namely, to evacuate superabundant juices, or to cause revulsion, or derivation from any particular part, by making a general drain or draught. Rowels have a gradual, yet effectual operation, and are of excellent use in all cases of stagnated or impeded humours, in recent lamenesses and stains, attended with inflammation; in sudden swellings from blows, where extravasation, or bursting of the fluids from their vessels, has taken place. Bracken has questioned their good effects on

lean and hide-bound horses, and in the grease; but experience is surely against him in the latter case, since rowels have usually the effect of stopping, at least diminishing, the greasy discharge in the legs; and hide-bound and unthrifty horses are often suddenly amended by the use of this drain, for which, considering their emaciated appearance, it seems difficult to assign a reason. It is scarcely worth while to describe the operation of making a rowel, it is a thing of such common use; and every farrier who has made one, in course, supposes he has opened a door for the exit of foul humours exclusively, reasoning in that straight forward way, that it is a pity should ever deceive a man, to wit, that a discharge of such ill savour, must needs be of a malignant nature.

Considering the laws of circulation, I can scarcely make up my mind, as to the utility of placing rowels in proximity to the part affected, or whether they can possibly have the effect of emptying the circumjacent vessels, any otherwise than by the gradual and circuitous mode of revulsion; nevertheless I think a near situation ought ever to be preferred where practicable. The parts proper for their insertion, are the chest, shoulders, belly, hips, inside or outside of the thighs; but Mr. Clarke objects to their being made between the jaw-

bones; on account of the constant motion of the jaws. A horse will bear the discharge of a considerable number of them at once, which, indeed, in urgent cases, is absolutely necessary, in order to derive any considerable or speedy benefit from the practice. Gibson gives a very necessary caution against rowelling horses of a dropsical habit, with poor and watery blood, and when the swellings appear upon their legs, belly and sheath; in such case the issues never come to a good digestion, instead of which a large flux of serous humours will ensue, and it may be difficult to prevent a mortification. Schirrus and cancer also may be produced, from inserting rowels near glandulous parts, or when the muscular flesh may have been wounded in the operation, or bruised by the continual pressure of the hard leather. Should a rowel have been injudiciously exhibited in a disease and fail to discharge, except a little thin bloody ichor, there is danger that instead of suppurating properly, it may soon turn gangrenous; in this case Mr. Clarke advises to take out the leather instantly, and foment the parts with a strong infusion of chamomile, and to poultice repeatedly, if the situation will admit it, also to bathe with spirits of wine and turpentine, defending the wound from the external air; if needful, two or three ounces

Peruvian bark, *per* day, may be given either by drink or ball. The incision for a rowel, should be about three-eighths of an inch long, and in separating the skin from the flesh, the latter ought not to be wounded or bruised, the leather must be very thin, not stiff or hard, nor so large as formerly in use; the shape and size of a crown piece is most proper, having a large round hole in the middle: cover the rowel with lint or tow, dipped in digestive ointment, and after its introduction, close the orifice with a pledget of tow dipped in the same. If the operation succeed, the surrounding parts soon swell, and a plentiful discharge of simple humour ensues; which, in two or three days, will be changed into a thick white pus or matter. The time is indefinite for the continuance of the discharge, but the memory of the operator, if he be of the Vulcanian kind, ought to be by all means refreshed, that he may extract the leather in time, or he will be obliged to cut it out, and a very unsightly induration or lump may remain.

SETONS. The utility of these, in the opinion of Dr. Darwin, is very great, from the consideration that they facilitate the discharge of matter from abscesses, without the necessity of admitting much air, the influence of which

upon an ulcer, is the cause of hectic fever. In respect to setons for horses, I shall follow Mr. Clarke, in preference to any other authority, although I can by no means join him in the sanguine expectation, that they may entirely supersede the necessity of more harsh measures, in long neglected and inveterate cases: in truth, I know by experience, such hope to be fallacious. When tumours are taken in time, whether on the poll, withers or back, and have not been previously bungled by common farriers, whose management in this case is often the worst part of the disease, they may be carried off, and brought to heal by the discharge from setons, without any of the usual butcherly, and cauterizing work, or the least blemish or loss of substance. Farriers are very apt to proceed with the knife, before the matter of the tumour is fully concocted, by which error they treble the difficulty, and period of the cure, and most probably leave an indurated lump which is never effaced.

The seton-needle is a long, thin, sharp instrument, pointed like a dart, with which the practitioner ought to be furnished, of various sizes, from six to fifteen inches long, bended a little on the under side. The seton-cord, dipped in digestive ointment, being suited to the size of the tumour to be discussed, and the

matter fluctuating from being ripe, the needle may be introduced at the upper end of the swelling, and the point conducted through the whole length, and brought out at bottom; if necessary, and for the sake, of procuring a depending orifice, the instrument may be forced through the sound muscular flesh. The seton being properly fixed, let it be tied together at both ends, or if the length will not admit of that, affix a button of wood at each end, by which it may be drawn upwards and downwards, as when tied, it may be turned in a circle. When there shall be no farther discharge, and the swelling shall have subsided, withdraw the seton, and heal the orifices with any spirituous application.

BLEEDING. The well-known use of bleeding, is in all cases of inflammation, or with the intent of prevention, in cholic, suppression of urine, strains, blows, or other accidents. Phlebotomy, in small quantities, is sometimes resorted to in weak and impoverished habits, in order to remove the lensor of the blood, and invigorate the circulation; but in inflammatory fever, it is the sheet anchor, without the help of which, it would be totally impossible for nature, human or brute, to outride the storm. I had lately a remarkable instance of this before my eyes; the patient was an infant of

eighteen months old, of a full habit, and recently weaned, under the inoculated small-pox : the fever ran so high, that it was obvious death must ensue in a few hours, unless the distended and throbbing blood-vessels could be soon relieved. No blood could be obtained with the lancet, nor would the leaches readily take hold ; however, by patience and attention, and changing their place, they at length did their business, and the child instantly revived, and was soon out of danger—Many patients, I believe, are lost, for want of timely or sufficient bleeding in inflammatory cases. The quantity even of four or five quarts, may be safely taken, at one time, from a large, robust, and plethoric horse, should the exigence of the case demand a very considerable evacuation. Upon ordinary occasions, the portion is between one and two quarts, by measure ; I repeat, by measure, because notwithstanding, scarcely a veterinary writer since the days of Solleysel, has failed to declaim against the beastly and dangerous practice of drawing off a horse's blood at random, and by guess upon a dunghill, like water from a water-butt, yet the same race of hard-headed idiots, into whose care we still wisely commit the health of our horses, continue the enormity. The pulse of a horse in full health, and not under the in-

fluence of alarm, makes from thirty-six (Dr. Hale's statement) to perhaps forty-five strokes in a minute ; a late writer on the strangles, says a horse with a pulse as high as fifty, may be well, and free from fever ; but I have reason either to suppose him in an error, as that the pulse in horses is an uncertain criterion. The strokes may be felt by gently pressing the temporal artery, or the ear, or the carotid arteries on each side the neck, or those near the heart, or within the legs, and they have been found during the highest degree of inflammation, and great pain, to amount to one hundred and twenty in a minute.

The old writers, who were unacquainted with the circulation, and of course expected peculiar benefits from local bleedings, named thirty-one veins in the horse's body, at which he might be bled ; to wit, the two temple-veins ; the eye-veins, beneath the eyes ; the palate-veins, in the mouth ; the neck-veins ; the plate-veins, in the breast ; the fore-arm-veins ; the shackle-veins, before ; the toe-veins before ; the side, or flank-veins ; the tail-vein ; the haunch-veins ; the hough-veins ; the shackle-veins behind ; and the toe-veins behind. But as from the incessant rotatory motion of the blood, bleeding cannot have a partial, but only the general effect of diminishing quantity,

and of making more space in the vessels, it matters but little, from what vein blood be taken, any farther than that the neck veins are most convenient for the purpose, and therefore had always better be used.

It were to be wished, that the old, rude, Patagonian method, of forcibly driving a sharp instrument into the body of a horse, with a club, or blood stick, could be totally abolished; but there certainly is some difficulty in the case, at least, with common operators. With veterinary surgeons in general, I believe the practice has ceased, but the use of the spring-fleam is, I understand, still attended with inconvenience; and I have been told by a gentleman in the habit of bleeding horses, that he can perform the operation easiest and best, with a common small lancet. I can readily believe such to be the best method, after a little practice shall have made a steady and skilful hand. Every one acquainted with horses, knows enough of the inconvenience and dangers of the ancient method: sometimes a horse is stricken ineffectually half a dozen times, slipping his head aside at every stroke, until the seventh, when the business is done; too effectually, and the vein divided, an artery or perhaps a tendon wounded; should the operation be upon the plate, or thigh-veins,

such an accident might be fatal. I chanced to be at the college awhile ago, where I saw a horse, which had been treated in this manner by a blacksmith and was sent thither to be cured. The vein was divided, and a considerable wound made in the neck, which had just come to suppuration; the horse, in the mean time, being affected in so singular a manner by the accident, as entirely to lose his appetite, and the grooms were actually drenching him with gruel.

The most proper part of the neck to which to apply the lancet, is about a hand's breadth from the head, and one inch below the branching, or joining of the vein, which runs from the lower jaw, and which will appear full by pressing the main branch; the integuments also are thinnest thereabout. In case, from the folly of frequent blood-letting, the neck of the horse should be covered with scars, it is then better to have recourse elsewhere, and an operator should accustom himself to bleed on either side indifferently. I have the authority of Mr. Clarke, for advising that a ligature be never made until (supposing the horse upon his legs) the orifice be opened; and even then it will frequently be needless, and as the pressure of the finger will in general occasion the blood to flow sufficiently free. I have seen

ligatures made so excessive hard by ignorant smiths, that the patients have been nearly suffocated, and there are instances enough of horses absolutely falling down in an apoplectic fit, from the bandage being long continued upon such, which from ill usage were shy at the operation of bleeding. When a horse's head may be tied up to the rack, pinning the orifice is seldom necessary, but if it must needs be pinned, care ought to be taken that the skin be not drawn too far from the vein, so as to admit the blood between the skin and flesh, which frequently happens, producing suppuration, and a swelled neck: another precaution of equal consequence with any of the foregoing, is, that in case of accident in bleeding, the patient be immediately put into proper hands, if within the reach of such, from a rational apprehension of the cures of ignorant bunglers, which, their tediousness and danger out of question, too often leave an indelible designation of the doctor upon the body of the horse.

I have lately conferred with a common farrier, formerly attached to a troop of horse, who constantly bleeds with the lancet. He says the sole objections to the practice subsist in prejudice and the awkwardness of stupid and bungling smiths. Consulting a coachman on the subject,

I had another proof of that vulgar sophistry which so painfully and incessantly exerts itself in the counteraction of every improvement. It seems the lancet *might* penetrate too deep, but the shoulder of the fleam prevents such consequence ; as though the body of the horse did not yield to pressure from too heavy a stroke ; that the frequency of accidents is notorious, and that it is equally obvious how much easier it must be to guide a lancet than to direct accurately a forceful stroke with a blood-stick. In a late publication, in which are introduced a number of cases of swelled necks, I was much surprised to find no recommendation, or even mention of the lancet. The cures were generally effected by Bracken's favourite method, the old Arabian practice of the cautery. I have sometimes seen ill effects, and cures protracted from the premature or immoderate use of the actual cautery, particularly when in common hands.

ALTERATIVE FORMS. The intent of alterants is gradually to remove chronic, or obstructions of long standing, which would not so readily give way to the brisk and transient effects of a purge ; by thinning, purifying, and accelerating the motion of the animal fluids. The chief considerations in the exhibition of this class of medicines, are, that the more powerful

species be not resorted to, unless the humours of the animal be in a corrupted or depraved state, that the doses be very moderate and continued a considerable time, and that the powders be reduced as fine as possible; to a pinch of snuff. Large doses purge, and the medicine passes too quickly; their frequency debilitates the stomach, and depresses the spirits; if the powder be gross, instead of entering the lacteals and passing thence into the blood, it is carried through the intestines unchanged. I have seen rhubarb ejected from the bowels of an infant, the second or third day, in the same crude state as when given.

No. 1. MILD ALTERATIVE. Flower of brimstone, and cremor tartar, equal quantities; with these mix canella alba, a drachm of the latter to an ounce. The dose half an ounce to one ounce twice a day, either given in a ball with treacle, on an empty stomach (the most effectual way) or mixed with the corn, being first of all well stirred into a little wetted bran.

No. 2. Add gum guiacum, finely powdered, and turmeric, equal quantities with the above. Mix well. This succeeds well with delicate constitutions.

No. 3. Pound the finest antimony, that is, large, clear, and shining, like polished steel, to an impalpable powder, mix with equal quantity

of powdered guiacum. Six drachms to one ounce *per day*.

No. 4. ANTIMONIAL ÆTHIOPS, four to six drachms every night, for a fortnight, then omit a week, afterwards repeat for another fortnight. It is made as follows: the best antimony as before, twelve ounces; crude mercury, sixteen ounces; brimstone eight ounces: grind them together to an impalpable powder. This medicine has great effect in farcy, inveterate mange, or obstinate dry coughs.

CHAP. III.

CATARRH—EPIDEMIC COLD OR DISTEMPER—RHEUMATISM—GLANDERS—BROKEN WIND.

CATARRH is either local or universal in the body, and in its nature and effects, either cold and chilling, or hot and febrile: colds are sometimes epidemic, or general, amongst men and animals, from a malignant disposition of the atmosphere: this influenza amongst horses, and the varieties of the horse, is vulgarly styled the DISTEMPER; a catarrhal discharge, or running at the nose, of long standing, is denominated the GLANDERS.

The occasion of that accident, which is termed CATCHING COLD, seems to be an unsuitable too sudden, or too long continued exposure of the body, or any part thereof, to the bracing influence of the external air, by which the emunctories, outlets or pores of the skin, serving to eliminate the invisible perspiration, or steam, are astringed and closed, and the perspirable matter repelled into the habit. A trans-

lation of the obstructed matter to Snecider's membrane, usually happens sooner or latter, if that be not primarily affected ; at least the nostrils are the common channel for the discharge of catarrh. Snecider, the cotemporary of Harvey, first described the pituitary membrane, or web, which lines the nose, palate, and œsophagus, and is filled with small glands, secreting a slimy liquor, whence, and not from the brain, proceeds the running at the nose in a cold. In a local cold, some particular part of the body only, which may have been accidentally exposed, is affected, and the tension, inflammation, and pain, are confined to that part ; should a portion of the morbid matter remain unabsorbed, or strictures be brought upon the vessels by repeated cold-strokes, the disease, in process of time, becomes chronic, and then assumes the appellation of RHEUMATISM.

The new medical school has, it seems, rejected the ancient theory of the origin of catarrh, from obstructed perspiration. I can scarcely comprehend the scope of Dr. Beddoes' intention, when he informs us, that he has repeatedly turned a horse out by night, in the winter season, from the warm stable into the fields, and taken him up again the next, or following day, without any preceptible change in his state of body ; nor withhold my wonder when he as-

sents, we want experiments of the effects of such treatment; these, God knows, have ever been in such plenty, from the indolence and stupidity of mankind, that the most diligent observer of symptoms need not be at a loss. The doctor's horse failing to catch cold, goes no farther in contravention of the general principle, than does the circumstance of some person's escaping the infection of the plague and small-pox, in proving those not to be contagious diseases. I have been much more lucky at cold-catching than Dr. Beddoes, and have witnessed a multitude of experiments with horses similar to his, which have been attended with all possible success; producing defluxions from the eyes and nose, inflamed and swelled glands, staring coat, fever and loss of appetite. The common *methodus medendi*, adopted by the country people in this case is "to let them run it off," and sometimes it runs into the true glanders, an instance of which was related to me a short time past.

Dr. Beddoes has also adopted the notion, that sudden transition from heat to cold is less productive of catarrhal affections than the change from cold to heat; a notion which from diligent observation (and if personal experience ought to claim any attention, few have a right to boast of greater than myself in the course of

twenty or thirty years) appears to me totally paradoxical and groundless. Not that I mean to deny the consequence in any case, but I believe it to be generally where the heat is too soon succeeded by cold, and there I apprehend lies the deception. When cold is succeeded by a sudden warmth of temperature which is steady and permanent, no particular tendency to rheums is ever observable. Colds, it is evident, are most generally caught in cold and changeable seasons; and inflammations of the head, throat, or chest, and in general, croupy affections, which obstinately defy all remedies with the wind in a cold and nipping quarter, will be instantly mitigated, and most probably cease, on a change of the wind, and a succession of warm weather. Can as much be predicated of the converse of the proposition?

In No. 5 of the *Hygëia*, or *Essays on Health*, by Dr. Beddoes, a work abounding in useful and practical observation, are to be found certain opinions and assertions, which the Doctor will find it no very easy task to support. He observes, “the opinion prevalent among the
“faculty and the public was not only erroneous
“concerning the production of these diseases,
“but directly led to the most dangerous management. Within these few years the mystery, so long hidden, was unveiled by the

“ sagacity of Dr. John Brown, of Edinburgh,
“ an author of powerful genius.—The discovery
“ deserves to be regarded as one of the most
“ ingenious and happy combinations ever
“ formed by the human mind, and in relation
“ to these islands, perhaps, eventually the most
“ useful recorded in the annals of medicine !”

This wonderful discovery, it seems, is, that the complaints in the membranes of the head, wind-pipe, and chest, which properly deserve the name of hot or inflammatory catarrh, are not owing simply to cold, but to the concurrent action of cold and heat, or stimuli equivalent to heat. Persons in the habit of medical reading, and familiarized, in consequence, with the ever-varying phrases of medical hypothesis, and the slippery nature of opinion, absolutely lose the faculty of wondering, which else must be excited in a powerful degree by assertions like these. Allowing the genius of Brown, (whether it tended to the *verum* and the *utile* is another question) where are we to find even the semblance of novelty in the doctrine above stated? Who, that ever heard, read, or has been personally sensible of the effects of catarrh, could possibly remain ignorant of the usual, and frequently necessary association of heat and cold in that disease? What wonder, that heat, a necessary consequence of obstruc-

tion, should be found among the symptoms of a disease, itself originating in obstruction? Perhaps it will be found, that Brown, prone to generalizing, was not equally well grounded in the philosophy of exception; and I submit to the learned, whether the new terms he coined convey any other than old and well-known ideas, and whether such ideas are not expressed with a far superior correctness and power of discrimination in the usual and established medical phraseology? I desire information—Was John Brown any thing more than an ingenious sophist, who set up with a stock of new phrases, not a whit too precise, on the ground of which he reared a new praxis, equally deficient in precision, and productive of the most temerarious and dangerous errors?

At any rate, there can be no pretence of Brunonian novelty in the treatment of frozen limbs, by the previous washing them with snow and cold water; but surely Dr. Beddoes was rather off his guard, in recommending, that in catarrh “the analogy of frozen limbs should “be strictly followed.” Would the Doctor in this case advise ice-creams, against which he had already declaimed so violently, or large potations of snow-water? Had he so soon forgotten his own maxim, a page or two backward,

“ that no person already chilled is fit to en-
“ counter a more chilling medium ?”—that
“ the chill requires liquids (as wine and water)
“ above the temperature of the human body,
“ and indeed as warm as can be conveniently
“ swallowed. In case of a chilly seizure, from
“ the unwary use and application of cold wa-
“ ter, very hot liquids, taken till the contrary
“ sensation arises, would probably prevent all
“ injurious consequences.” There is a strict
analogy between this “ chill” of Dr. Beddoes
and the cold species of catarrh, and by his al-
lowance, or rather absolute recommendation of,
warm and even hot remedies, he has obviously
given up all for which he was contending. On
the treatment of the frozen limb, I might have
remarked, that the analogy between external
and internal remedies is by no means strict;
that even in the case quoted, heat is the desi-
deratum, but can only be admitted with safety
by degrees, for the most obvious reasons. The
case of Dr. Hamilton’s boy, cured of an inci-
pient catarrh, by lying abroad all night, and
that of the beggar, prove nothing but the ma-
nifest truth, that there are exceptions to gene-
ral rules. The fact is notorious, that many
keepers of post-horses have been in the habit
of washing them whilst in the most ardent and
intense perspiration, all over with cold water,

and that they have persisted in such practice, many years together, with impunity; I demand of Drs. Beddoes and Hamilton, whether in consequence of those instances, they would recommend such practice?

Dr. Darwin says “ the uses of the perspirable
“ matter are to keep the skin soft and pliant,
“ &c.—yet has this cutaneous mucus been be-
“ lieved by many to be an excrement; and I
“ know not how many fanciful theories have
“ been built upon its supposed obstruction.
“ Such as the origin of catarrhs, coughs, in-
“ flammations,” &c. He observes farther,
“ that the ancient Grecians oiled themselves
“ all over, that some nations have painted
“ themselves all over, that the Hottentots smear
“ themselves all over with grease, that many
“ of our own heads are at this day covered with
“ flour and fat, according to the tyranny of a
“ filthy and wasteful fashion, without this in-
“ convenience, and that there is a strict analo-
“ gy between the uses of the perspirable matter
“ and the mucous fluids, which are poured, for
“ several purposes, upon all the internal mem-
“ branes of the body.”

In answer to all this, it may be said that it is by no means material to the purpose, whether the perspirable fluid be excrementitious or not, since it is evinced by the constant experi-

ence of the senses, that under certain circumstances, and in certain degrees, cold will have the invariable effect of closing the cuticular pores, and of obstructing or preventing the emission of fluid, which obstruction always produces morbid sensations in the body, and usually a discharge from the nostrils: and it is to be presumed whenever the mucous fluids are obstructed internally (the bile for example) such obstruction also produces morbid effects. That a fair analogy of the subject does not subsist with those instances, which the doctor has adduced by way of illustration, since nobody pretends that oleous, warming, and consequently relaxing applications, will have the effect of closing the pores, on the contrary, it is rather to be expected that all such, by their warmth or suppling quality, will have an effect directly opposite; and it will be found by experience, that to powder and dress the hair is a remedy of considerable efficacy in a fresh contracted cold. A lady of my acquaintance, just got up from her lying-in, imprudently exposed her head by combing out all the tangles of her hair. She had scarcely finished before she was seized with a tightness of the skin all over her head and throat, a sharp sense of cold in those parts, and great pain; these symptoms were soon accompanied with considerable discharge

at the nose, and inflammation of the parotid glands. Fortunately, a doctor was at hand, in the person of the hair-dresser, who prescribed, as he pretended from frequent experience, a large quantity of powder and pomatum, to be applied instantly. This was accordingly executed, and the patient assured me she felt the stricture taken off the skin, and the obstruction immediately removed by the comfortable warmth and relaxent effect ensuing the application.

I am as little disposed to agree with Dr. Darwin in the sentiment, that the use of powder and pomatum upon the head, is "a filthy and wasteful fashion." I entertain a totally contrary opinion, in favour of which I think I have sufficient reasons to urge, but they would be out of place here; I will only remark, that it appears to me, most of our popular writers have failed upon the subject of luxury, in the same manner, and for similar reasons, as upon the question of monopoly.

Let not the Reader accuse me of arrogance, in presuming to question so great and respectable professional authorities as Darwin and Beddoes, since no man, or set of men are, or ever were infallible; since I follow other authorities equally great, and since the matter is fairly within the province of common sense.

With regard to catching cold, horses domesticated, and men, are much upon an equality, that it is very easy to judge from sympathy in what circumstances, and upon what occasions, the animals are liable. Some of the most common, and truly the most proper causes of catarrh are the following: New, unaired stables, change of stable from warm to cold, doors or windows suddenly thrown open, continued so at unseasonable times, and currents of air improperly admitted; exposure to the night air; being suffered to stand still in the cold air immediately from a hot stable, or when in a state of perspiration; the unnatural practice of washing horses in such a state, with cold water, at any season; sudden turning out to grass from warm keeping; damp body cloths, or saddle pads.

It is to the interest of every proprietor, however poor, to be provided with some kind of covering to throw over his horse's loins, on any sudden transition from heat to cold; it must also be remembered, that a horse which works and runs at grass, in cold seasons more particularly, ought never to be curried, which renders his body too susceptible of impression from the air; such should only be rubbed with wisps. Should a horse take cold at grass, it is infinitely better to house him by night in a

state of moderate warmth, and allow a few mashes and warm water, from which treatment he will most probably be ready to brave the weather again, in a sound and healthy state, in the course of a few days, rather than suffer him to languish amid the damps of the soil, with a running at the nose which may continue for months. The usual objection to this practice is, that it induces a tender habit, which argument is also much used against clothing horses in colds; but I have always observed, *that the animal body, under the influence of obstructed perspiration, is still more liable to an accession or increase of catarrh from that very account, and by no means so much so, after the disease has subsided, and the vessels are less distended, which is an answer to the objection in both cases.*

Horses which are exposed to all weathers, but which have still caught cold, and yet cannot be spared from their constant duty, ought, on the first appearance of the disease, to have clothing allowed during their labour, to lose some blood, to have nitre in their water every night, and a cordial ball drink. This is the unfortunate description of horses which is destined to undergo all the dreadful evils of neglected and accummulated catarrh—cough,

pleurisy, asthma, yellows, rheumatism, glanders, consumption.

On the confirmed appearance of cold, lameness, wound, or indeed any malady of consequence, the chances are infinitely in favour of withdrawing a horse instantly, and putting him in the way of a speedy cure. I can set down and calculate on this head, to my sorrow, from experience.

I have too long known the vanity of reasoning in opposition to prejudice, supposed interest, and present convenience, to hope even for a hearing against the practice of washing post-horses, when in a high state of perspiration, with cold water. I shall be immediately stopped short with the old argument of experience. Thus the statesman, who upholds a fictitious and unnatural order of society, by the help of the gibbet and the sword, tells you with the utmost gravity, that although possibly, such a system may not be justifiable upon the principles of abstract right and theoretic truth; yet that it is practically right and true, he is ready to prove from experience. But human experience is equivocal and fallacious, whilst truth and principle never change. It is truth, that all sudden and violent extremes are against nature, and the universal reason of things, and therefore of improper use, and ultimate ill suc

cess; but the few exceptions are laid hold of by present interest or whim, and upon these is erected a deceitful experience. A man tells me, he has been in the constant habit for many years of washing his horses with cold water, or even of plunging them into a river, when in the highest degree of heat from labour, and that such practice has with him been successful. I answer, he is much more liable to commit an error than nature. The animal body may be compelled by force to endure the most improper and ultimately injurious treatment; the horse has not the power of describing his pain, his signals of complaint and distress are answered by the whip; his increasing maladies are unheeded, he is driven onward, until outraged and overburdened nature sinks outright. No conclusions worthy of dependance can be drawn from a few apparently successful instances, and it accords with general and rational experience, that the common and destructive maladies of post-horses are known to arise from alternate extremes of heat and cold; and that colds with them do not always find a vent at the nostrils, but their effects remain latent for a considerable time, in different parts of the body. It is an ill-judged speculation to double the common risks of hackney horses for the sake of supporting a lame hypothesis, or of saving a little la-

hour. Examples of the fatal effects of exposing the animal body, whether human or brute, in this way, are innumerable. It is well known to cost the lives of a vast number of Russians annually, and to debilitate and gradually consume most of those who are addicted to it. At the famous stables of Chantilly, before the revolution, some of the finest English horses were annually sacrificed by this cold immersion; and it has been reported of the horses which were killed in the flight of Louis to *Varennes*, that their death was rather occasioned by improper treatment afterwards, than by the sudden effects of fast driving. I have reason to believe, that the ablution of new born infants in cold water, has caused the death of many. I know not in what degree this insane practice may obtain, but that such practice does exist, I have sufficient information. A child of my own was killed by it, shewing the most evident indication of the cause of that obstruction, which induced convulsions and death. A similar accident happened in a French family in my neighbourhood, as I was lately informed by the nurse; there is also a certain lady now living, who has been blind from the day of her birth, having lost her sight from the same treatment.

I had nearly forgotten to describe a new method of cold-catching in the human animal, of which the public in general may not be aware. It is from the religious cold-bath. It was that aquatic sect among us, who, according to Butler,

“Dive like wild-fowl for salvation,
“And fish to catch regeneration.”

who first made the valuable and important discovery, that John ought not to be called the baptist, but the dipper and the sprinkler; accordingly, the doctors among them hold it proper to brace up the religious zeal of their patients, with a good catholic souse of the naked body in cold water. Now, whether for want of faith, as the holy ones never fail to plead, in case of ill-hap, or from what other cause it may proceed, this cold-bathing the soul for its health, has sometimes proved fatal to its partner the body. Not long since, a woman whom I personally knew, died from the ill-consequences of this religious freak. Instantly on her return home from John the dipper's soul-sprinkling cold-bath, she complained of an oppression at her stomach and breast; she became gradually consumptive, and held out about a year and half. I have since heard of a similar acci-

dent, but the patient is in a convalescent state.

The common symptoms of a cold in a horse, in its first stage, are well known—cough, discharge of lymph, or water from the eyes and nostrils, and occasionally hanging down the head. If attended to at first, as it ever ought in this land of rheums, at any rate in cold seasons, the disease will immediately submit; a few days, or even a single day's warm treatment in the stable, a little additional clothing, warm water and mashes generally do the business; the vessels being relieved from a superfluous load, will contract, and the horse will not be liable to relapse, on exposure to the air. Spirit, or salt of hartshorn, in warm ale, sweetened with syrup of poppies, given twice a day, is an excellent medicine on the first attack of cold catarrh; but great care ought to be had that the dose of hartshorn be not too large, lest it excoriate the throat of the horse and choke him. Two or three table spoonfuls of the spirit may be given for a dose, in a quart or three pints of beer: a proper judgment may be made by the taste of the drench. Or fresh ground ginger, two to four drachms, is a good substitute for the hartshorn. See Index for an excellent R. of this class,

Should the disease, either from neglect, the common cause, or sudden accident, be of a more confirmed and serious nature; should there be a considerable discharge from the nostrils, an inflammation of the glands under the jaws, attended with loss of appetite; medical aid must be called in, or the business may be very tedious, beside the risk of leaving in the constitution, the seeds of certain of the most dangerous chronic diseases.

In catarrh, the first and grand consideration is, whether the patient be chilly or feverish, in the language of the ancients, whether the disease arise from a hot or a cold cause; a distinction which Bartlet has not made, who inveighed so much against the hot method of practice in colds; for these cases require a directly opposite treatment: in the first, you can scarcely load on too much clothing, or prescribe medicines of too warm and volatile a nature, since it is your intent to create a temporary fever, in order to fuse or dissolve the coagulated lymph, and bring the disease to a crisis: but in the latter case, when the symptomatic fever already exists, and perhaps in a considerable degree, such practice would be very hazardous, and cooling diuretic medicines with venesection are clearly indicated. I shall begin with the

cure of this latter case, or cold attended with fever.

Mr. Blaine's objections to my pathology in this disease appear to arise from two causes; a mistatement of my ideas, and his want of practical observation on catarrh. He ought to have said, the same disease with *opposite* symptoms, instead of, "the same disease with the same " symptoms." That catarrh is sometimes attended with chills, rigours, and a low pulse, and at others with fever and inflammation, requiring an opposite treatment in each, and that the animal body, under the influence of obstructed perspiration, is still more liable to an accession or increase of catarrh, from that very account, I had conceived to be too open to every one's observation to suppose them any discovery of mine: that such, however, are the facts, I cannot hesitate to aver without giving up the constant evidence of my senses. As to the hot cause of catarrh, according to the ancient pathology, Mr. Blaine should at no rate have objected, considering his apparent inclination to the new theory of Dr. Beddoes and others already adverted to; besides, why not a variety of types in catarrh as well as in fever? Mr. Blaine, in the character of Professor, says "We therefore give now no cordials." I would wish to say modestly, where-

fore we, on the contrary, do still occasionally give cordials—because nature herself has established their use, and practice continues to sanction it. Even the old-fashioned cordial-ball is still found a convenient stimulant and deobstruent. But enough may be found in my books against the frequent abuses of medicines of this class by grooms and farriers.

That cordials should have the particular effect of throwing coagulable lymph into the trachea, seems rather a fanciful notion; nor is it probable that such common effect constitutes what is styled a *roarer*, since, in that case, roarers would be much more frequent. Of the nose-bag in a cold, one of our late improvements, as I have never experienced its use, I can only say, speculatively, that I take it to be a very convenient vehicle, from which the horse may swallow the largest possible quantity of discharge, or stand the best chance to be suffocated in a fit of coughing. The pretended danger of a recourse to sneezing powders, granting them to be moderately used, I believe to be groundless, and I can speak from sufficiently frequent trials of their efficacy in certain cases. But to return—

It is generally good practice to bleed at the commencement, which ought to be repeated in a few days, if fever and fullness of the vessels

indicate the necessity. Give the following, in one or two balls, twice or thrice a day, allowing plenty of warm gruel or white water, which should be poured down with the horn, if the horse refuse it: Nitre and cremor tartar, of each one ounce; juniper berries fresh and good, powdered, one ounce; Spanish liquorice melted, half an ounce, or enough to sweeten with; work them up with liquorice powder or flour. This medicine may be given in gruel or ale, if a drink be preferred, and an addition made to the quantities if required. In either of these methods you are certain the horse has his medicine; which is by no means the case when you trust to infusions in his water, or to ingredients thrown upon, or mixed with his mashes, which are frequently rejected and lost. Some horses also with delicate stomachs will not touch a mash, in which any medicine has been mixed. There is, however, great inconvenience, and even danger, in forcing any medicine down a horse's throat, when he is much troubled with a cough; and the utmost tenderness and precaution ought to be used. Observe that the cloths be not damp, or hard with dirt and sweat; in regular stables, clean washed cloths should be reserved for these occasions, or new made use of, well aired. Woollen cloth is a specific for opening the pores; the stimulus of

the points of wool, according to Dr. Darwin, acting upon the skin. Should the throat be much swelled and inflamed, it will be necessary to keep the hood on in the stable; and the glands may be bathed well two or three times in the day with camphorated spirits, or spirit of hartshorn with a small quantity of oil. All possible attention should be paid to cleanliness, and straw kept in the manger to receive the discharge from the horse's nose. No hay, or other food, should be suffered to remain and become tainted with his breath. In case of damp weather, or cold searching wind, the horse ought not to stir out of the stable; but if fine, he may be walked out an hour, in the middle of the day, well clothed, and with his hood. Dr. Bracken relates his success in running a horse a four mile sweat, in order to bring the cold to a crisis, but I never tried it; and should think it a hazardous experiment. The Doctor's prescription for increasing the discharge, when the horse may be heavy headed, from the matter being locked up, and not finding a free course, is half an ounce of the dried leaves of the herb *asara bacca*, white hellebore one drachm; powder fine, and keep it corked up. Blow a small quantity of this snuff through a quill, up the nostrils, two or three times a day. The universal concussion occasioned by

the act of sneezing, has considerable effect in opening obstructions, and is usually succeeded by a favourable glow.

The above method I have always found successful, in cases of no higher consequence than those described; and the medicines recommended of equal efficacy with those of greater expence, or consisting of more numerous articles. It is necessary to give a caution against impatience, and against the hazard of a relapse, from putting the horse to work before the running at the nose has ceased, and his appetite is re-established; a part of the morbid matter being left in the vessels may be translated to some bowel, whence it may be impossible afterwards to dislodge it. If the discharge has been considerable, the horse must have swallowed much of it with his meat; on that account, and for the sake of cleansing the habit of any relic of the disease, give, a few days after he shall have recovered of the catarrh, an aloetic purge; or a mercurial one, if a grossness and fulness of body should require it.

The fever running high, with violent heaving of the flanks, indicating great commotion of the blood, rattling in the throat, with loud strong cough; all cordial drenches, or balls compounded of hot seeds, ought to be avoided, as they occasion a dangerous increase of the

fever. Cooling, aperient, and diuretic drinks, similar to those already recommended, must be the dependance here; nor must the horse be overburdened with cloths. The giving hot spicy drenches, in this case, is a usual error of the farriers, who, judging in a right line, that cold and heat are opposites; and the horse having a cold, think they cannot do better than to ply him with heat.

On the contrary, should the horse's blood seem chilled, with cold breath, cold extremities, and little discharge from the nose, it will be necessary to allow plenty of clothing, and to exhibit warm cordial and stimulating medicines; perhaps in this case, bleeding may be omitted. The common cordial ball, I have generally found of equal efficacy with the other forms recommended; variety of which however will be found in this Chapter. Comfortable malt mashes will be required. Should the cold have been contracted from the horse being long exposed to the weather, when heated with violent exercise, or from passing deep waters in that state, and the limbs become swelled, stiff, and inactive; an addition of two drachms of camphor to the cordial drink, will render it more penetrating. After this class of medicines shall have had a successful operation, the cure may be completed with cooling diuretics

as above, or they may be used alternately according to symptoms. It behoves me to state, that I have frequently seen errors committed on both sides the question: in cold catarrh, by the too early exhibition of saline and refrigerating medicines, merely from the affectation of a new and more refined method of practice, by which the disease has been prolonged, and the patient (human or brute) needlessly kept in a weak and aguish state many days. I have more than once made the blunder myself.

In the above case, whether of common cold or influenza, and even supposing some degree of fever, the following form has perhaps had as great success as any, at least in my hands. Give the horse, in a quart of warm ale, two or three table spoons full of volatile aromatic spirit, nearly the same quantity of laudanum, or two scruples of opium, with two drachms of purified nitre: sweeten with honey or sugar. Repeat this morning and evening, for several days, as there may be occasion. It is a good medicine in weak cases.

The symptomatic cough generally ceases with the original disease, indeed always, in case of a perfect cure; but should the cough be very frequent and troublesome, from violent irritation of the humours about the root of the tongue, and along the windpipe; the following

lubricating drink will be of use, and may be given a pint or two at a time, blood-warm, at discretion.

The PECTORAL INFUSION to ease the cough. Raisins stoned, half a pound; liquorice root, split, or bruised, three ounces; white hore-hound, three ounces; linseed, two ounces: nitre, two ounces; infuse in four or five quarts boiling water, and let the whole stand covered up two or three hours; strain off, without pressing, for use.

It is evident that balls, in this case, can be of very small topical use, but that a drink has a more lasting contact with, and acts more powerfully upon the seat of the complaint; the above is free from the old objection of being too oily and clogging, and I can recommend it from experience. Lemon juice, or solution of cream of tartar, may be added, if thought necessary. This infusion, proportionally reduced in quantity, is a most excellent remedy for hoarseness in human patients.

To allay the tickling cough in horses, and heal inward soreness, Solution of gum Arabic, or tragacanth, with honey are used: also infusion of linseed, tar, oxymel of squills, &c.

Catarrh is of proportionate strength to the degree of cold taken, and its astringent force upon the cuticular absorbents. Thus some-

times so violent a shock, or cold-stroke is received, as to cause a spasmodic contraction of the muscles, in the parts immediately affected, the spasm by sympathy extending to various other parts. I can best illustrate this, by the description of a case from my memorandums, which came under my notice in September 1794. A large black cart gelding, of an irritable and choleric habit, being too much exposed to the wet and cold, particularly the night air, in a hard job of scavenger's work, was seized very suddenly with illness, on being taken out of the shafts. His jaw became fixed, his tail set out, and his hinder legs extended very wide. He had a universal rigour and shivering; with a considerable motion in his flanks. It soon appeared that the cramp or contraction extended from his jaws, along the vertebræ of the neck and back, and also along the muscles of the belly on each side from his elbow to his sheath, which were considerably enlarged. He recovered the use of his jaws, I believe, the next day, probably from the mere warmth of the stable. The eighth day all the remaining symptoms continued, with frequent attempts to stale, the urine coming in drops, with much pain, the kidneys and bladder having been primarily affected, or since by translation. An intermittent pulse, never high. Much slaver

from the jaws, the passages of the head being intirely obstructed. Staring coat, tolerable appetite, neither costive nor otherwise. The horse was fit to go to work again, in about eight weeks; he was under the care of a farrier, and the bill, I was informed, amounted to about fifty shillings. I conversed much with the doctor, but his discourse was so wild, that I could not possibly discover from it any certain rule of judging or prescribing in the case, but he assured me generally, that he had made cures in many similar cases, although his skill was as nothing to that of his father, who could cure all diseases whatever, either of cows, horses, or christians. With very vague ideas of the nature and cause of the disease, this man treated the horse in some respects judiciously enough, according to that random intuitive kind of practice by which all these empirics are distinguished. He rowelled the horse, and blistered his flanks, to which I think the cure is to be attributed; for according to the best observation I could make, and to enquiries of the horse-keeper, the internal medicines exhibited had very small effect, unless perhaps in retarding the cure.

Sometimes it was reported in the stable, that the horse was about to have the farcy, at others, that his disorder had arisen from a

strain in the loins; but all agreed that many horses had been lost, or fallen into incurable complaints, in a similar case. My own opinion at the instant was, that in the first place, the horse would have been infinitely more safe in the hands of a skilful surgeon, and also that the cure might so have been performed in much less time, and with less injury to the condition of the animal. This hint I hope will not be thrown away.

About two years previous, I had personal experience of this kind of malady. At a certain Inn at Hounslow, they put me into damp sheets. In about an hour, I awaked from a most frightful dream, in which was represented to my troubled imagination, a scene like the fabled hell of poets and poetical writers. I found myself in a burning fever, and instantly guessing the cause, I jumped out of bed, tore away the sheets, and then wound myself up, head and all, so completely in the blankets, as to leave only a small aperture to breathe from. In that comfortable situation I did not forget the landlady and her maids, to whom I most piously wished a real estate, in just such a country as I had lately viewed in imagination. For several weeks I had a constant chilliness upon me, and an extreme susceptibility of fresh cold; then a tumour in the arm-pit, with

a contraction of the muscles of the breast and arm, the sinews being corded to the elbow. Tried mercurial unction, which induced inflammation without any benefit, an effect I have often observed. New flannel, and camphorated spirits, made a cure in about three weeks, and I thought myself extremely fortunate to escape so cheaply.

As to the curative intentions of this acute rheumatism in the horse, they consist first, in embrocating the parts affected, proper prescriptions for which will be found amongst the following forms: in bleeding, if the state of the body will permit, in giving warm and stimulating medicines, with nitrous and acidulated drinks, and in rowels and topical blisters. Where such convenience can be had, the warm bath for twenty minutes should precede every other means, the horse being rubbed bone dry, and well clothed; this may be repeated once or twice a day; it must be a sovereign remedy in all colds, but requires much beyond ordinary care. Even a warm bath for the legs, as high as possible, the fore legs first, then the hinder, whilst the fore ones are rubbing dry, the water being kept constantly in a good steaming heat, without annoying the horse, will have great effect. The water may

be medicated, with decoctions of herbs of a softening and relaxing nature.

THE EPIDEMIC COLD, OR INFLUENZA,

Arising from atmospheric contagion, is too well known, both in its cause, and diagnostic symptoms, to need a very particular description. It is generally supposed infectious, or communicable from one horse to another, and although I entertain some doubts on that head, I should certainly recommend to separate the infected horses from those as yet untouched by the disease. The general treatment already described, must be persevered in, but with still greater attention to warmth about the head and throat, and to cleanliness in respect to the discharge, which may be very copious. Care must be taken, in case of syringing the nostrils, that the membrane be not abraded with sharp and stimulating injections, which may induce purulent ulcerations, of worse consequence than the original disease. Should the fever be considerable, with little or no discharge from the nose, or with retention of urine, and nature seem much oppressed, and unable to throw off the load at any outlet, antimonials and powerful diaphoretics are indicated. When the dis-

ease has taken this turn, the fever will sometimes run so high, that the flesh of the horse will feel burning hot, and he will refuse all sustenance, nor attempt to lie down until a critical discharge shall happen somewhere: this crisis may come in the form of hot watery eruptions or blisters, in tumours under the elbow or hock, or collections of water along the belly, near the inguinal glands, which the farriers, who shake up cause and effect, disease and symptoms, in the bag together, denominate the water farcy. Nature having proceeded thus far in her work, nothing remains for the practitioner but to assist her gently with cooling diuretics, and as occasion may require, relaxent glysters.

VARIOUS FORMS.

No. 1. INFUSION FOR A FRESH COLD AND COUGH, FROM GIBSON. 'Take hyssop, colt-foot, penny-royal, and horehound, of each a handful; six cloves of fresh garlic, peeled and cut small, linseed, and fresh aniseed powdered, each one ounce; liquorice half an ounce; saffron one drachm; infuse in two quarts boiling water close covered; warm a quart of this infusion, and dissolve in it four ounces of honey, to be given fasting, letting the horse stand two hours before he has meat or water. Scabious,

anise, agrimony, and the carminative seeds anise, cummin, coriander, fennel, &c. are used in this intention:

No. 2. A COMMON INFUSION OR COOLING DRINK. Take groundsel, ground-ivy, rue, rosemary, mallows, balm, sage, parsley, or as many of them, or of similar qualities, as are at hand, of each a double handful, corn poppies one handful, boil in five quarts of soft water to three—strain and sweeten with honey or treacle. The chief use of infusions and decoctions of the medicinal herbs, is as vehicles and auxiliaries. Taplin had surely some reason in styling the favourite herbs of our good old grandmothers, *botanical deceptives*.

No. 3. The CORDIAL POWDER. Aniseeds, elicanpane, liquorice, bay-berries, grains of paradise, juniper-berries, stone-brimstone, equal quantities finely powdered. Mix well and keep close corked for use. The dose from one to three ounces, in warm ale sweetened with honey, or balls made with honey or treacle. This medicine is of great use, when a horse is first seized with a shivering fit, refusing his food, and breaking out in clammy cold sweats; it may be repeated several times, at six or eight hours interval. Or, cummin-seeds, half a pound; bay-berries, and Jamaica pepper, each four ounces; myrrh, two ounces; cloves, one

ounce; powder fine and mix, stop close. Said to have succeeded often in cases of cold water being drank, when the horse was in a state of perspiration. Perhaps the same quantity of fresh powdered ginger, may be an advantageous substitute for both the pepper and cloves, and whenever *brimstone* is ordered, I give it merely on old authority, having no experience of it, being more efficacious in any intent than sulphur. Garlic is still held a powerful specific, by some country horse doctors.

No. 4. THE PECTORAL BALL FROM BRACKEN. Take half a pound of No. 3, or of the common cordial ball, two ounces fresh hoglice or millipedes, (or salt of amber, or of tartar, or of hartshorn, four drachms) one ounce milk sulphur; half an ounce of cold species of gum tragacanth; balsam of Tolu in fine powder, one ounce; chio turpentine half an ounce; syrup of balsam enough to form the balls. Give half an ounce to three quarters twice a day, before going out to exercise. This ball is much recommended by the doctor, and is well calculated for a horse which has contracted a fresh cold and cough, but is sufficiently in spirits and vigour, to be able to work it off in his exercise. It is very proper for a horse in training: Or, A good detensive or cleansing ball may be made, by adding to any form of cordial

ball, squills, Barbadoes tar, and Castile soap, each about a quarter of the quantity of the cordial mixture.

No 5. LINIMENT FOR SPASMS, OR CONTRACTIONS FROM COLD. Mix goose-grease, or any penetrating oil, with spirits doubly camphorated, rub thoroughly the muscles affected three times a day, a quarter of an hour each time. Oil of turpentine would be most proper, but unless previously boiled, it will fetch off the hair. Or, Nerve ointment and oil of bays, of each two ounces; camphor rubbed fine one ounce; rectified oil of amber three ounces. Mix.

No. 6. PERSPIRATIVE POWDER FROM BARTLET. Purified opium, ipecacuan root, and liquorice, in powder, one ounce each; nitre and tartar of vitriol, of each four ounces. Mix well and stop close. Join from three to four drachms of this powder, with a drachm of camphor, and give it in a ball made up with treacle, night and morning, clothing very carefully.

No. 7. Or, Nitre and stone-brimstone half an ounce each; camphor one drachm; tartar emetic one drachm. Ball with treacle.

No. 8. The ANTIMONIAL BEER. Glass of antimony finely powdered, eight ounces, strong beer one gallon, infuse in a stone bottle

a fortnight, shaking well every day. Give one pint of this in a little warm ale and treacle, twice a day as long as needful. It has a most powerful effect upon the whole vascular system, promoting all the animal secretions, and should be kept ready for use. Or, for a hasty occasion, two or three drachms of antimonial powder, as in No. 8, in a drink of strong beer, or ale, sweetened with treacle, twice or thrice a day. For other antimonial medicines, proper in colds attended with much fever, see *Fever*.

RHEUMATISM

Has been already defined a chronic local cold. Its seat is among the integuments of the muscles, and according to Dr. Darwin, it consists of inspissated mucus left upon their *fascia*, paining them when they move, and rub against it, like any extraneous material. It is probable, the *sciatica*, or hip-gout in horses, is merely a rheumatism, at least there is no danger in confounding them, since their cure will be the same. Dr. Bracken says, the rheumatism is properly a disorder of the strong and robust, by which, I suppose, he meant, that the vigorous muscular contractions of such are most retentive of the morbid humour; but as similar

effects sometimes happen from opposite causes, the disease may remain fixed in a weak habit, from deficient irritability, and insufficient energy in the fibrous actions to cast it off. In truth, I have seen chronic rheumatism sufficiently often in lax habits. As to the curative intentions, every one will be aware of the necessary discrimination; bold measures may succeed with the former; with the constitutions of the latter class, the practitioner will not allow himself to make so free.

The grand difficulty lies in ascertaining the disease, which is sometimes vagous in different parts of the body; the shoulders are often affected; but that confirmed species particularly designed here, is usually seated in and about the hip-joint and membranes adjacent. The horse goes lame, from no visible cause, but from a long continuance of the disease a wasting of the parts may ensue. The sight and touch must determine the case, distinguishing it from lameness in the foot, the tendon, the hock or stifle, or from the pains occasioned by initient spavins, or curbs. Could certainty be produced, no method would be attended with so probable a chance of a radical cure, as the actual cautery; holes being bored with a small iron, very deep into the muscular parts near the *nervus sciaticus*, and the issues close covered,

er blistered, left to discharge a considerable time. Bracken, who was equally a bold and judicious practitioner, recommends this to human patients, and records the cure of an inveterate sciatica by this method, upon a jolly hostess of Yorkshire.

The cure. Bleed. Rub the parts affected with spirits well camphorated, and oil, or ox-gall mixed, twice a day, keeping on, if possible a thick woolly bandage, well soaked in the mixture. A mercurial purge. A week after, the antimonial beer, to be continued three weeks or longer, the horse kept constantly well clothed, with walking exercise twice a day, the weather permitting. Warm bath, with much friction of the parts, afterwards swimming in a river occasionally.

But the only cure to be depended upon, in my opinion, is a month's run at salt marshes in the Spring, and being continued abroad in some shady place till Autumn; afterwards mercurial physic, and the best stable care.

EMBROCACTION from Bracken. Nerve ointment, and soldiers ointment, two ounces; camphor, two drachms; oil of turpentine, and oil of Peter, each three drachms; spirit of sal ammoniac, two drachms. Mix well and keep in a pot stopped close with a bladder. Shave off

the hair, lather with soap, and when dry, anoint twice a day.

TURPENTINE DRINK, from the same. Take ætherial oil of turpentine *from Apothecaries Hall*, half an ounce; three yolks of eggs, three ounces treacle, mix. Give this cold in half a pint of white wine, and repeat it every third day for three turns. Cover with thick blankets. Moderate walking exercise.

Balls of guiacum, powdered, half an ounce; cinnabar of antimony one ounce, mixed with cordial ball, half a pound, and worked up with syrup of the fine opening roots, are also recommended. Blistering the part will sometimes succeed. Ether, both externally and internally. Do not the inhabitants of Bath and Buxton extend the use of their warm baths to their rheumatic horses?

GLANDERS.

This disease in horses, and the venereal disease in the human race, bear much about the same date in medical annals; that they originated at so late a period as that usually assigned, appears to me totally irrational to suppose, and in direct opposition to the general œconomy of nature. It is to suppose the ancients and

their horses exempt from uncleanness and obstruction, and their consequences, to assert that they had neither syphilis nor glanders among them. Nature has ever been intrinsically the same, but obscured or neglected, variously described, or misunderstood, at different periods.

The glanders, so fatal to horses, was called by the Italians, *ciamorro*, and is described very correctly as to its symptoms, and its origin by the old veterinary writers, both Italian, French, and English. Blundevil, and after him Markham, gave the following short description of its rise, progress, and completion: "Of cold, first
" cometh the pose (that is stoppage in the head)
" and the cough; then the glanders, and last
" of all, the mourning of the chine." Of the nature of the disease, they had yet very confused and erroneous notions; of course their attempts at cure were irrational, and little to the purpose. But they by no means deserve the ridicule which has been cast upon them, for the term *mort-de-chine*, or as Blundevil Englished it, mourning of the chine; since they did but what is very common with our modern farriers, denominate a disease from one of its prominent symptoms. That the wasting of the chine is an almost invariable symptom of chronic glanders, I have had fre-

quent occasion to observe; and in the last of two attempts to cure the disease, my patient, a six year old mare, had a real *tubes dorsalis*, as far as that term is supposed to intend a consumption, and weakness of the loins.

Snape was the first of the old veterinary writers who really understood this disease, and probably it will not be too much to assert, that he has given as just and philosophic, although concise, an account of it, as the most celebrated of our modern writers; of which any professional man may satisfy himself, by turning to Gibson's First Treatise, in one Volume, where Snape is quoted, since the work of the latter being scarce, may not be easily obtained.

Bracken was undoubtedly in an error to assert, that the glanders was not infectious; the Doctor had surely not investigated the nature of contagion, with his accustomed patience and acumen; but his observations on the disease, in his own Treatise, and his notes on *La Fosse*, whose memoir on the glanders he translated, will be found of great consequence to those who desire information on the subject.

The *Sieur La Fosse*, farrier to the French king, about the year 1749 made various experiments upon glandered horses, but his chief merit was the invention of the method of trepanning them, in order to throw injections

immediately upon the ulcerated parts; a discovery of importance, particularly since it proved in every instance to be unattended with the least harm, or even blemish to the horse. Edward Snape, formerly farrier to the present king, followed *La Fosse* in this practice, as I have been informed. I embrace this occasion of making the old Doctor amend for erroneously killing him with a word, in my First Volume, by bringing him again to life in the present; he not only lives, but is at the instant employed in writing a 'Treatise on Farriery, from the practice of half a century: I shall be happy to find that it equals in ability the very able, although concise one, of his ancestor.

The last practical writer on this subject, is St. Bel, in whose work many curious observations will be found: these remarks are intended for the use of such professional gentlemen as may be desirous of consulting the best authorities with as little trouble as may be. With respect to the possessors of glandered horses, who may wish to make experiment of the possibility of cure, they ought to be assured, that it is a case which demands the skill of the most able veterinary physicians and surgeons, and that no satisfaction can possibly be derived from the random attempts of ignorant pretenders.

The following anatomical facts, or opinions, I have extracted from Bracken on *La Fosse*, and from St. Bel.

La Fosse.—"There is no communication between the brain and the nose in the horse." This was by way of answer to those who held the glanders to be a defluxion from the brain. But his commentator controverts this position of *La Fosse*, who is supposed to mean no more by it, than that the brain is parted from the upper part of the nose by bones, and that therefore there is no danger in performing the operation of the trepan; there is a communication through the holes of the bone, called *ethmoides*, or *cribiforme*, from its resemblance to a sieve. "In proportion as the sublingual glands, which are two in number, situate one on each side between the lower jaw, are swelled more (that is, obstructed) the nose would run more; if one only were swelled, then the nostril on the same side only would run." "The seat of the glanders is in the *membrana pituitaria*, or lining of the nostrils; best method of cure by injection." "Nineteen out of twenty glandered horses which were killed, had their viscera sound, or very little distempered." "When the discharge is inclinable to a brownish hue, with blood, &c. the covering of the capillary vessels (in the lining of the nostrils) is abraded

and worn off by the sharpness of the humour, and blood makes its escape at the extremities of the ramifications or branchings of the veins and arteries." "The sublingual glands, or glands under the tongue, in horses, do not discharge from their canals into the mouth, as in man, but on the contrary, turn backwards, and pass behind the holes of the nostrils; these glands are anterior to the maxillary glands, which latter supply the mouth with all the saliva; for this reason, in the glanders, we find obstruction and tumefaction of the former, whilst the latter glands remain sound." "From the appearance of health, the durableness of some glandered horses, the good and laudable state of the viscera, the swelling and ulcers of the pituitary membrane, and the cornets, (or thin cartilaginous substances in shape of horns, in each nostril) and the matter which fills the sinuses, we may reasonably conclude, the glanders is a local and inflammatory disease, and that the disease of it is in the pituitary membrane." "A horse for eighteen months, discharged a thick white humour in abundance from his nostrils. At rest in the stable the running ceased, and was exchanged for a rattling noise in his breathing, which noise ceased in turn, on the horse being worked, when the running again succeeded: whence

inferred the horse not glandered. Being killed, the pituitary membrane was found perfectly sound, and all the interior parts of the nose in a good state, without any unnatural contents in the sinuses. The lower viscera sound, but a large abscess at the entry of the lungs, in the place where the *trachea arteria*, or windpipe, divides itself into branches.” “Horses cannot cough up corruption from the lungs by the mouth, as mankind do; therefore such matter runs off by the nostrils. If one nostril only run, we may be pretty sure the disease is not in the lungs, but the head, because the matter that comes up the windpipe from the lungs has an equal chance of entering both nostrils.” “A horse may live, and do business a long time, with an abscess in the lungs, before the matter, which passes up the windpipe, is capable of corrupting the membranes. The rattling noise in the nostrils, occasioned by the tumid state of the glands, and the prodigious quantity of matter which flows off, distinguish the present distemper from the glanders.”

St. Bel.—The glanders, an obstruction or erosion of the lymphatic ducts and fluids, in animals which do not cleave the hoof, a disease hitherto incurable.

“ Young horses most liable to the disease, fat horses more than lean ones, those at rest more than working ones, least of all those running abroad.

“ The peculiar symptoms of the disease are, that the virus in most cases does not produce any sensible alteration in the animal œconomy; the horse has no fever, dullness, or distaste to food, but the animal functions are all regular. The obstruction of the lymphatic glands. The hardness and insensibility of the glands, in this disease, justify the supposition, that the virus contains some noxious and active effluvia which condense the humours.

“ When the discharge is only from one nostril, the gland on that side alone is obstructed. If on compressing the glands (or kernels) between the fingers, an elastic repulsion is felt from the centre of the gland, and the animal shews sensibility of pain, the disease is not the glanders, because in that case the glands are hard and quite insensible.” St. Bel ought to have made the exception, that a portion of sensibility might remain in the glands with the incipient glanders.

The following opinion of Professor Coleman, on the nature of the glanders, merits the utmost attention. In an action at law on the case, in 1805, the Professor delivered his

opinion in court, as follows, according to the Newspaper report. Glanders is an infectious disease, but not always brought on by contagion, more frequently, by a foul atmosphere in the stable. There are two species of glanders, the acute and the chronic; the former not incurable. The chronic does not directly affect the nostrils, though they are the channels of the discharge, the seat of corruption being in the cavities of the head: this species contagious and incurable.

I shall now give my own sentiments respecting this disease, which, during the course of more than thirty years, I have seen in all the various shapes and symptoms described by authors, without being altogether an incurious observer. Within this period I have had three or four glandered horses in my possession, two of which I purchased, chiefly in order to make experiment. The first was a cart-horse, and upon what grounds I have now forgotten, I gave him oak-bark powdered in his corn, for nearly two months, and a considerable quantity of crude mercury; some attention was paid to cleansing his nostrils, and he was kept to constant work. The discharge abated by degrees, and at the end of about six months was scarcely visible; but although improved, he was still very faint, and troubled with a consumptive

cough. I sold him, and, about two years afterwards, saw him again offered for sale, much in the same condition.

About the year 1780, I bought a strong three part bred hunting mare, six years old, at a low price, and unreflectingly and cruelly stripped her and turned her into the cart stable, exposing her at once to the laborious duty of draught, at that time very constant and severe. From exposure to heats and colds, and general hardship, glanders were gradually induced, and in three or four months confirmed. The mare died miserably, and the circumstance never comes across my mind, even at this distance of time, without giving me pain. I bought a mare of Doctor Snape, which he supposed he had cured of the glanders, caught from being improperly treated in the strangles. She had not the smallest discharge, but was always in a weak and feeble state, and died tabid and wasted away, at grass, in about a twelvemonth. In 1788 I took a well-shaped mare, very valuable could she have been made sound, which was affected with what Markham would have styled "a high running glanders." In fact, she discharged from both nostrils a copious gleet of the very worst colour and scent, the kernels under her jaws were hard and insensible, her hair came off with the slightest

pull, she had the real hectic purulent fever, accompanied with the symptomatic “mourning” of the chine,” or the usual tabid appearance, more particularly in the loin. Her eyes were watery and gummy, sometimes her legs swelled; subject to faint sweats on the least exercise, appetite moderate, dung of a loose rotten appearance, coat fine, and laid well. I continued her strictly in the course recommended by Bracken, seven weeks, with alternate amendment and relapse, towards the latter part of the time, with some small apparent improvement; but my man getting weary of so disgusting an attendance, and foreseeing that a cure must be at any rate very distant, I sent her to Smithfield and sold her. I must remark here, that relying on the singular opinion of Bracken, I took no precautions whatever with these glandered horses, except in feeding them at some distance from the sound ones. The cart-horse stood in the same stable with five or six others, and yet nothing like infection, or any kind of ill consequence followed, and I have known many similar instances.

Much incertitude and variety has arisen in the definition of the true glanders. The doctrine of those skilful nosologists, the farriers, is as follows; should a horse die with a discharge from his nostrils, and they have no

other disease to lay to his charge, they say, he died glandered; but should he have the most fetid running, with all the other acknowledged symptoms of the disease, and yet recover, they pronounce he was not glandered. It is no doubt a safe mode of delivering an opinion. Some of the old writers give you a receipt “to bring away the glanders,” as if the horse had swallowed a peck of nuts, and you wished him to void them. The ostentatious La Fosse, as fond of splitting hairs, and of sublimating diseases into a useless variety, as our countryman Taylor of empiric notoriety, who divided the diseases of the eye into two hundred and forty-five, describes very accurately from the varying colour of the discharge, half a dozen different species of glanders; he might as well have cross-examined the dejections, in order to establish, from the various hue, consistence, and scent, as many different kinds of *diarrhæa*. I submit to the profession, whether every discharge from the nostrils of horse, ass, or mule, fœtid, and from its acrimony capable of erosion, ought not to be called glanders? It would save much useless disquisition.

The GLANDERS, or CONTAGIOUS CATARRH, is either chronic, as being the effect of inveterate and accumulated catarrh, or acute, as arising immediately from epidemic conta-

gion, or infection from one animal to another; the seat of the disease is in the sublingual glands, which are tumefied and obstructed, in the pituitary membrane, or in the lungs. That the disease is local according to the notion of *La Fosse*, is so far true, that the discharge always proceeds either from the pituitary membrane, or the lungs, but that the whole mass of fluids must be tainted by the glanderous virus in a confirmed case, I think needs no proof; we are not to wonder at the unwillingness of that author, to accede to such a position, he had his system of locality to support: the vanity of making every consideration give place to a favourite hypothesis, is not confined to the *Sieur La Fosse*.

Obstruction and stagnation, whether in the air, or animal fluids, I take to be the source of *mephitis* and contagious virus; circulation, motion, and currency its cure. Stagnation is the nidus (so to speak) where are hatched those *miasmata*, which penetrate, infect, and engender their like, in sensible bodies. Strong pungent fætor, is a distinctive characteristic of malignancy, and the power of infection. When the discharge from the nostrils is very fœtid, it is a proof that much matter is accumulated, and lodged in the *sinus*, or cavities of the skull, that the pituitary membrane is ulcerated,

and that the disease will put on its most malignant form. If the running be whitish, of moderate consistence, and but little smell, rather copious, and from both nostrils, it in general, I believe, indicates an ulcer in the lungs, that no lodgments of matter are yet formed in the cavities of the skull, and that the membrane is not corroded. I have seen horses in this state, fat upon the rib, and capable of considerable labour, although dull and sad; but the peculiar leading symptoms of glanders were in full force upon them, to wit, the tumefaction of the kernels, and the rottenness of the hair; the discharge also continued constant with no abatement from time. I have my doubts whether this milder species be at all infectious, and am in want of information why a superior degree of malignancy exists in the other, unless it be entirely attributable to the circumstance of the discharge in that case suffering greater impediment.

As to a CURE FOR THE GLANDERS, the easiest, cheapest, and that which never fails in the most desperate cases, after every other remedy has failed, is—the COLLAR-MAKER'S KNIFE—In nine cases out of ten, that is perhaps eligible; but the case of a valuable or favourite horse, or that of mere curiosity, and a laudable attempt at improvement, may justify

an experiment. There is a natural alliance between ignorance and cruelty; and the old farriers had a most cruel pretended cure for this disease; according to Blundevil, “they twined
“out the pith of the horse’s back, with a long
“wire thrust up into his head, and so into his
“neck and back.” It has long seemed probable to me, that there is great analogy between glanders and syphilis, and that brute patients under the former disease confirmed, ought to be treated like men in a venereal hectic. Mercurial and antimonial alterants, agglutinants, gums, woods, turpentine, opium, restoratives, particularly bark. What would be the effect of the famous nostrum of Paracelsus, opium joined with mercury? Or a course of sublimate continued for a time, the favourite medicine of Boyle, Boerhaave, and Darwin? What if the gases (if that could be afforded) of electricity in repeated percussions through the head and breast? In most attempts at cure that I have seen or heard of, the ulcers have been deterged and healed, but temporarily, the gleet recurring after awhile; which I think evidently proved that the virus had pervaded the mass of humours, and that internal medicines had not been enough attended to. Gibson records two very satisfactory instances of cure, and in Bartlet may be

found a very rational method both of cure and prevention, which last is no doubt the chief object: in this author, the use of the trepan is explained with plates.

Dr. Darwin seems to refer this disease, entirely to contagion, without being aware, that according to all experience, the horses which become glandered from contagion, either of the air, or of other horses, are few indeed to those which contract it from common colds neglected, and hard keeping. In case of the epidemic, the doctor recommends once bleeding, and a mild purgative of aloes and hard soap; on the appearance of symptoms of debility, with cold extremities and sloughs in the membrane, half an ounce of tincture of opium in a pint of ale, every six hours. Turning such out to grass with the gleet upon them, I have never known to succeed.

In general, those who have attempted the cure of this veterinary opprobrium, have made a too violent use of medicines of one class, have totally neglected those of another, perhaps the most material, and have expected success at too early a period. As to the external application, LA FOSSE should be punctually followed, and the mercurials and antimonials given in moderate doses, and long continued, with the woods, gums, &c. On the prospect

of the glanderous virus being subdued, a pretty long course of corroborants, among which equal quantities of oak-bark, and the yellow Peruvian bark, with steel, are most to be depended on, should conclude the medical part. A long run at grass afterwards, and if the patient be a mare, the horse.

A CHALYBEATE BEER, may be made as follows: Steel filings, sixteen ounces; cinnamon and mace, each two ounces; gentian-root bruised, or quassia, four ounces; aniseeds bruised, three ounces. Infuse in one gallon, fine, clear, old, strong beer for a month, stopped close, shaking often, then strain. Give half a pint for a dose, in a pint of cold water, or mild ale, once or twice a day, upon an empty stomach, leaving the horse an hour or two to his repose. I have taken this from the *Vinum Chalybeatum* of Boerhaave, substituting old beer, which I have reason to believe a good menstruum for the steel, instead of Rhenish wine; and adding one of the best bitters. Should cinnamon and mace be thought too expensive, Jamaica pepper, or allspice, would be a cheap and proper substitute. Or ginger. Isinglass may be added. It was the opinion of that great man, that no drug, diet, or regimen, could equal the preparations of iron, for promoting that power in the animal body by which blood is

made; of course, it must be a powerful specific, in all cases of over relaxed solids, debilitation and consumption. Would not chalybeate beer be a cheap and efficacious medicine for the poor?

Mr. Blaine is so complaisant, as to omit no opportunity, however trifling, of honouring me with his notice. He says, that probably I was not aware of the knowledge the ancients had of the glanders, when I observed, "that glanders and the venereal disease bore the same date in medical annals." I reply, that a little reflection might have saved him the trouble of such a remark. To wave what I had said on the utter improbability of either glanders or syphilis being new diseases, the fair construction of my words must be, that the two diseases attracted *general notice* at nearly the same period. With my books before him, what could lead him to suppose, that I had never read of the *moist malady*, or had never turned over the uninteresting and obsolete pages of Vegetius Renatus? unless indeed it were merely because the latter is obviously a task which he had never imposed upon himself. I say obviously, for it is impossible to reconcile his knowledge of that compilation of antiquated follies and absurdities, with his repeated strong recommendations of the book. I will beg leave to

present Mr. Blaine and his pupils with a short quotation from that erudite and favourite treatise—*A DRENCH AGAINST ALL KINDS OF DISEASES*, from Vegetius, page 593:—"A salutary composition ought to be prepared against all kinds of diseases, that so about the very time they begin, you may be able to encounter and resist them with such things as you have laid up in store and have at hand; for medicine that comes too late is vain, and of no value. Take a pound of myrrh, a pound of male frankincense, a pound of the skin of a pomegranate brayed, three ounces of pepper, three ounces of saffron, half a pound of the red thorn tree, half a pound of the grape-cluster cadmia, half a pound of burnt resin, half a pound of Pontic wormwood, half a pound of the powder of wild thyme, half a pound of betony, half a pound of centaury, half a pound of sagapenum, half a pound of faxifrage, half a pound of sow-fennel; after you have brayed and sifted them all well, you may mix them in three sextarii of the best honey, and boil them gently for a very little while upon the coals, and afterwards you put them up in a tin or glass vessel, and keep them for use." What a noble compound for an advertised medicine, which, exclusive of the faculty of curing all diseases, might well defy the united efforts of

all the chemists in Europe and America, both *phlog.* and *anti-phlog.* to analyze it. Furthermore, should any of Mr. Blaine's patients, brute or human, chance to be bewitched, Vegetius offers him an excellent specific in that case also.

PURSIVENESS, ASTHMA, AND BROKEN WIND.

On these kindred diseases, or different stages of the same disease, I have made a few remarks in the first volume of this work, page 304. In addition to the signs of confirmed broken wind, I have frequently observed a palpitation at the chest, and a considerable cavity there, with constant contraction and dilatation; but as I have said, if the horse be caused to move quick, the defect cannot possibly be concealed. That which constitutes what is called a *Roarer*, is a defect in the *trachea*, or wind-pipe, it being of irregular form, or insufficient dimensions to admit a free passage for the air. Roarers will sometimes go with their noses pointed straight forward, and elevated.

Whoever desires to enter into a very minute investigation of the nature and causes of asthmatic diseases in horses, had better consult Gib-

son, from whom most other writers on the subject have borrowed, and in general without having the honesty to acknowledge it; of this no one stands forth as a more eminent example, than the modest Mr. Foster, whose whole book of fifty years practice, is a tolerably accurate transcript of Gibson. The chief of what I have to say upon the matter is, that all diseases of this class (I mean chronic obstructions in the lungs) are absolutely incurable, and that the whole *rationale* of acting in the case consists in prevention and palliation.

Broken wind is no doubt an appropriate malady of the domestic state, since in the natural, it is unknown. I know not whether asses be subject to it; I suppose from their superior hardiness to horses, in consequence of less delicate treatment, they are not so open to the impression of cold.

Dr. Lower attributed the broken wind of a horse to a relaxation, or rupture of the phrenic nerves, which cause the motions of the diaphragm. A friend of Bartlet supposed the disease to proceed from a morbid or obstructed state of the glands, and membranes of the head and throat, the enlargement of which prevented a free passage to the wind. According to Osmer, "certain glands (called the lymphatics) which are placed upon the air-pipe, at its en-

“trance into the lungs, are become enlarged,
“and thereby the diameter of the tube is lessened;
“hence the received air cannot so readily make its escape, nor respiration be performed with such facility as before; from
“which quantity of contained air, the lobes of
“the lungs are always enlarged, as may be
“seen by examining the dead carcasses of
“broken-winded horses.” But I think I can best explain the matter in the words of Dr. Darwin; speaking of humoural asthma, he attributes it to “a congestion of lymph, in the air-cells of the lungs, from defective absorption.”

In my ideas, a redundance of lymph being thrown upon the lungs, the quantity becomes too great for the capacity of the absorbent vessels, hence it stagnates and chokes up the air conduits, and the theatre of its action being more confined, of course respiration must be more difficult and laborious. The disease will thus be always in proportion to the obstruction in the air-cells.

The most general cause of broken wind lies in alternate exposure to inordinate heat and cold. Nothing will ensure the disease so completely to the satisfaction of any experimenter, as that philosophic practice already celebrated, of washing with cold water, horses under the ardent fever of laborious exertion. Most

horses in public service, and many from improper stable-management, have their wind affected in some degree, the malady increasing with their years. Professor Coleman, I am informed, supposes broken wind to proceed rather from an acute than a chronic cause, namely, from a sudden and violent rupture of the air-cells: the investigation of this important matter is a proof of laudable diligence in his professional duties, but his opinion seems totally unwarranted by experience or facts, and in which he may have probably mistaken the effect for the cause. The causes which Mr. Blaine has assigned as *most usual*, he ought previously to have brought to the test of fact: it is true they have the semblance of being but too probable causes, yet I have never known, heard, or read of their producing any such sudden effects. I have been long convinced of the strong analogy in *Dispnea*, human and brute, and have often had horses labouring under the incurable *dispnea sicca*, accompanied with the dry, short, husky cough, to which cows also are liable. As to symptoms, repeated signals from the stern-chace denote much internal distress from hard service, and it is no good prognostic on the state of the horse's lungs, how sound soever he may cough, when, like that of Hudibras, -

"He answers from behind

"With brandish'd tail and blast of wind."

I have often considered the idea of Gibson, in respect to the too large size of the contained viscera, in proportion to the chest, and the difficulty thence of expansion to the lungs, as a cause of thick-windedness in horses, and am very far from thinking contemptuously of it. Eclipse, I have heard, was a thick-winded, hard breathing horse, and always made great noise in his exercise; on dissection, his heart and lungs appeared of a remarkable large size, and the case was precisely the same with a pursive hackney which I knew many years: but in all the different stages of this disorder the general treatment must be similar, differing only in degree. Be it remembered, that pursive horses demand a punctilious regularity in physic and exercise.

The disease may probably have arisen from want of timely evacuation, so that occasional physic and bleeding should not be neglected. Mercurial physic is indicated, being powerfully deobstruent, perhaps the saline course, from its diuretic effects, may be peculiarly useful in this case. A late writer on the asthma, seems to place the whole dependance for a cure in the almost total abstinence from liquids. It would

be madness to glut a broken-winded horse with water, but I never saw such take the smallest harm from a moderate proportion of it, frequently given; and perhaps the only reason why they are particularly greedy of drink is, because it is a received notion, that they ought to be kept without it. Give as little hay as possible, and that of the hardest and best kind, on the ground, or in a basket; mashes, and an extra quantity of corn. Carrots are specific in the case. If the patient be even but a middling cart-horse, it will pay to keep him to this regimen, instead of the common garbage diet. A constant run in upland pasture, where the bite is not too large, suits these horses best; but if once allowed this, there seems a necessity for it ever after, for if taken intirely into the stable again, their malady becomes intolerable. It is well known, although not always remembered, that asthmatic horses should be put to their speed by degrees, and that they are incapable of any violent exertions. Out of respect to the druggists, I shall set down a few prescriptions.

The following is Bracken's succedaneum for Gibson's too expensive balls, and even this is expensive enough of conscience, in proportion to the good it is likely to operate, although perhaps it would be difficult to contrive a better

form. It must be remembered, that medicines intended to open obstructions in the lungs, have the whole tour of the circulation to make, and that they have not the power, as the farriers suppose, immediately to enter the doors of the disease, and eject the tenant.

Recipe. Half a pound cordial ball, if it be too dry, add half a pint fine Florence oil; balsam of Peru, two drachms; anisated balsam of sulphur, three drachms; flowers of benjamin, two drachms and half; make the mass with burdock seeds in fine powder. Give a ball the size of a pigeon's egg, when going out to exercise. If burdock seeds cannot be obtained, I suppose liquorice powder may be substituted; but it may be worth while in a regular stable to make a reserve of that seed, of which more hereafter.

OR, One pound cordial ball; powdered squills, and Barbadoes tar, two ounces each; make up the mass with honey.

OR, Antimony in the finest powder, eight ounces; brimstone powdered, four ounces; gum ammoniacum, pounded garlic, and hard soap, each four ounces; Venice turpentine, three ounces; aniseeds, bay-berries, and linseed, in powder, two ounces each; make the paste with honey, and oxymel of squills. Give a ball daily for a month; omit a month,

and then repeat, having a strict care as to regimen. This may mitigate the symptoms of the disease, and render the horse more useful: or may prove an excellent preventive when the danger is apprehended. Soften the ammoniacum by pouring a little vinegar upon it, letting it stand twelve hours; pick out any small stones or foulness, and pound it by itself; peel the garlic, add, and pound it with the gum.

Or, A course of tar-water, about four times the strength of the common; a quart or two given in the horse's drink. Lime-water is said to have been found a palliative of late by certain horse-dealers.

The vitriol of copper, joined with emetic tartar, has formerly succeeded in a few instances of inveterate asthma, when every other known remedy had failed.

The case of pulmonary abscess in horses must surely be hopeless, as well from the common reason of the difficulty of effecting union of divided parts, where incessant motion takes place, as the consideration, that the constant labour expected from the horse still enhances the difficulty. If any remedy, it must be pure air in upland pasture; the patient to have no disturbance for at least twelve months. There are some few instances of a mare breeding, al-

though evidently asthmatic, and with a discharge from the nostrils. La Fosse relates that a horse, in the worst stage of the glanders, covered a mare; and it is probable a glandered mare would breed.

CHAP. IV.

ON FEVER—PLEURISY—PERIPNEUMONY
—SUPERFICIAL OR EXTERNAL PLEU-
RISY—INFLAMMATION OF DIAPHRAGM
—ANTICOR—YELLOW—STRANGLES.

SIMPLE or idopathic fever, is a preternatural acceleration of the blood's motion, and consequent heat; the compound species, or the associated and symptomatic, is the effect of some morbid material thrown upon the circulation, which acts with a virulence exactly commensurate with its proper qualities, and the existing state of the bodily humours. Fever is most generally experienced to be symptomatic, and is indeed associated with a vast variety of diseases: in putrid fever, the fever is the effect, not the cause of contagion. Fever is almost invariably combined with catarrh; and such is the analogy between them in their causes, effects, and cure, that they might not very improperly be esteemed synonymous, with the bare distinction of hot and cold. In a retro-pulsion of that fine fluid or exhalation, the per-

spirable matter, which even those who have corrected Sanctorius, make so considerable in quantity; if the load be thrown upon the pituitary membrane, and be evacuated by the usual catarrhal discharge, the disease is called a cold; but if the obstructed matter remain fixed upon any bowel, it may assume the denomination and guise of fever, or perhaps of some other disease.

That the ancients held this analogy will appear from the following example: “Manasses, “the husband of Judith, as he was diligent “over them that bound sheaves in the fields, “the heat came upon his head and he died.” Judith, chap. viii. St. Bernard says, that the cause of this man’s death was an immoderate running of rheum out of his head to the inner parts, which rheum or humour was dissolved by the burning heat. Constantius says such a disease arises indifferently from a *hot* or a *cold* cause, *caloris seu frigoris ictu*; and in the former case, advises a fomentation of roses infused in cold rain water, rose-buds being held to the nostrils, also cold infusion of the twigs and leaves of willows; in the latter, laudanum, thus, storax and castorium. Hence, I suppose, came the notion of a decoction of willow being useful in the glanders. An English writer,

who lived in the reign of Edward VI. calls the disease of Manasses a poze.

The symptoms of fever in horses, analogous to those in our own species, are either mild, intermittent, inflammatory, or hectic and malignant; and there is an equal analogy in the class of medicines indicated, and the method of cure. Horses, from the nature of their services, and the severities they undergo, must necessarily be much exposed to febrile disorders, some of the most common causes of which are, excess of exertion, particularly in the hot season; plethora; or superabundance of blood, from high feeding and little exercise; in general, any obstructed humour thrown upon the circulation; the inspiration of malignant air.

I must once more refer those who desire much practical information upon this disease in horses to Gibson, who, if he has not treated it with scientific and logical precision, has done that which is of infinitely greater use; he has described the various symptoms from his own observation, and given a very rational method of cure from his own practice: from him chiefly have all our minor authors derived their pathology and prescriptions in the different species of fever, which they have hashed and served up again, in that which each supposed to be

the most plausible form. Bracken is lame and imperfect on fever, obviously from haste and inattention; but his loose remarks deserve to be read over.

Bartlet is the mere echo of Gibson; but that indefatigable diligence, which is Bartlet's honourable characteristic, is ever at work to pick and cull from all quarters, whatever he judges may be useful to his readers: I allude to his *Pharmacopœia Hippiatrica*. Osmer, as I have before observed, must be consulted in Epidemics, and the veterinary practitioner, even if experienced, will not regret the small labour of having perused Dr. Layard.

In the fevers of horses which seldom retreat by critical sweats, no additional clothing should be used in the stable, nor the head covered, unless for the particular purpose of encouraging a critical discharge from the nostrils. The stable should not be kept in a stifling heat, and the horse ought to be walked out daily, if circumstances will permit; but abroad, I think, he ought to wear his hood. Gibson allowed cold water in fevers, and almost all other authors have implicitly followed him; but I am convinced I have seen inflammatory cases, in which such practice would be attended with extreme, probably instant danger. Water, blood warm, or white water, that is, such as

has had a little bran, or oatmeal boiled in it, must surely be preferable; but if cold water must needs be allowed, let it be previously boiled. I have somewhere lately read an account of the revival of the ancient practice of ablution in typhus, or nervous fever, with cold water and vinegar; cold water I have also heard has been tried upon a horse in the same disease, but with no fortunate effect, the animal dying soon after. It ought never to be practised, I apprehend, upon a skin which shews any tendency to perspiration and moisture; such probably is the chief criterion by which we ought to be guided.

Those hot aromatic drenches of the common farriers, with which they do so much mischief in fevers, have been already censured; another caution is necessary against the common groundless apprehension of horses starving themselves, by their abstinence during sickness; this is by no means peculiar to grooms, our good old nurses, who when we are debilitated, “cram us till our guts do ache,” with that delectably light, nutritious substance, calve’s foot jelly, coming in for their full share of the merit. Let it be remembered, that in general the appetite ought to be the only director in this case; and that nothing can be more preposterous than to force solid aliment upon a stomach most pro-

bably, already overladen with morbid matter, which mixing with the new accession, will either remain an inert indigested stercoraceous mass, or going through the common process of digestion, send an impure and vitiated chyle into the blood, to add new force and virulence to the disease. Should the horse have fasted a considerable time, and no indication appear of returning appetite, his strength will be best supported by nutritive glysters, which may be exhibited several times in the day. Locks of the best and sweetest hay should be offered him, as the practical Gibson well observes, by hand, a method by which most horses will be tempted to feed, particularly if the food be tendered by a favourite. At any rate, solid corn is highly improper in fevers, unless in very small quantities, and ground, as an addition to the mash, and even that is most befitting the decline of the disease or convalescent state: the common diet must be hay, scalded bran, or pollard, warm fresh grains.

On the re-establishment of health, after any acute disease, it will be found of material consequence to guard against the too sudden return of appetite in the horse; the inordinate indulgence of which may induce surfeit, indigestion, and the disagreeable concomitants of an accession of crude and unconcocted humours. Bring

him gradually to his accustomed rations of solid meat. To counteract the ill effects of any morbid relics in the constitution, a dose or two of purging physic, or a short alterative course, may be expedient; the choice in which must be left, in all cases, to the judgment of the practitioner, who is referred to the Chapter on Purgatives. On the contrary, should the patient be left by the disease in a weak and impoverished state, the crisis of his blood broken, his pulse languid, and his appetite small, shewing in his whole appearance what the old farriers called “leanness and mislike;” recourse must be had to a light and nourishing diet, with the daily assistance of a cordial ball. In this case, boiled meat has very sudden happy effects. Boiled barley or other corn. Turnips and oatmeal boiled, some of the liquor being infused in the drink. Boiled rice and potatoes. Baked potatoes. Raw carrots and lucern. Mild rhubarb purge. Moderate walking exercise on dry ground, as I have seen relapse, and very disagreeable effects, ensue on the exposure of the feet and legs to wet, in case of recent recovery from fever. Grass.

The common symptoms of fever in the horse are extraordinary heat and dryness of the skin, jaws and tongue; strong breath, pulse quicker than natural, or intermittent; inflamed eyes;

heaving at the flanks, and impeded respiration; ears and the lower extremities hot, restlessness and fickle appetite, either to meat or drink; sometimes avidity of drink, frequent casting out of dung-balls, and difficulty of staling; high coloured turbid urine. These signs at their commencement may indicate nothing more than mild, simple fever, but if neglected in the common way, from want of observation, or on the plea of necessity, the disease either becomes inflammatory and of instant danger, or degenerates into that species of fever which usually terminates in yellows or jaundice.

I must beg leave, in this place, to enter a caveat against the practice of immoderate and profuse bleedings, adopted of late by various juvenile practitioners, on almost every occasion which may be supposed to require venesection. The idea, and it is a very just one, that during the existence of inflammatory diathesis, it is really dangerous to be too sparing of the patient's blood, has induced a spurious analogy: It has thence been rashly and falsely concluded, that, generally, no good can be effected by a moderate bleeding. I am led to conclude, from long observation, that much irreparable mischief is constantly done by over bleeding worn-down and debilitated horses. That lightness and cheerfulness temporarily induced by

the stimulus of evacuation, either from bleeding or purging, is a never-failing source of deception. A middle-aged man, in a state of great debility, was bled five ounces, with the view of mitigating vertiginous symptoms. I saw and enquired of him every day, and he neither acquired his previous degree of strength, nor was that trifling waste of blood sensibly repaired under three weeks. One of the class of improved and enterprising practitioners, lately ridiculing my cautions on this head, asserted it was idle to suppose, that taking a less quantity of blood than four or five quarts, could have any perceptible effect on the circulation of a horse, since he had frequently seen three gallons taken away, at one time, not only with impunity, but beneficially.

Nor do I approve of the practice lately introduced, of commencing the cure of all fevers with aloetic purges, more particularly those composed of the coarse aloes, at any rate surely ineligible, when the horse's stomach may be supposed in a state of debility. Should evacuation be strongly indicated, glysters may be used, but if a stomachic purge, give three or four drachms of fine aloes, with a drachm or two of rhubarb, in a solution of six or eight ounces of glauber salts. Let the vehicle be three pints smooth gruel.

Simple fever, taken in time, ordinarily submits, in three days, to a course of medicine and treatment nearly similar to that recommended in a slight case of warm catarrh: naturally tending to alkalization, fever is to be cured by acids. Bleed agreeable to discretion as to quantity, give a drink of nitre, cremor tartar and honey, from one to two ounces of the two former, each a like quantity, in three pints of a warm decoction, or infusion of any, or as many of the febrifugal herbs as can be readily obtained, twice a day; plying the horse in the interim with as much of such infusion as he will take in his water, or if necessary, drenching him with it. The chief of these herbs are, scordium, or water germander, pennyroyal, balm, sage, sweet fennel, chamomile, agrimony, pellitory, sorrel, mallows, and dandelion, the whole plant with the roots; which last stands recommended by Boyle as a febrifuge. The efficacy of those herbs, in this case, is by no means equivocal or contemptible; but if none can be conveniently obtained, give the medicine in gruel.

If inflammatory symptoms supervene, with violent pulsation, and throbbing in the arteries, so as even to be visible, bleed according to the directions in the Chapter on Bleeding, and continue the use of the lancet at intervals, whilst the inflammation continues. Give the

above medicine in an increased dose. Suppose, one ounce and half of nitre, and half an ounce cremor tartar, to two ounces and half nitre, and one ounce cremor tartar; according to the size and strength of the horse, every four hours. Back-rake, and give first a common glyster; if the costiveness continue, with difficulty of staling, give a purgative and diuretic glyster, for which, see the Chapter on Purgation, I have witnessed wonderful effects from nitre; it is our sheet-anchor in the fevers of domestic animals. The addition of cremor tartar, itself a diuretic and febrifuge, perhaps renders the medicine, to a degree, laxative, at least useful in case of an obstructed stomach. If, notwithstanding the mucilaginous drinks, or gruel, the stomach of the horse should be nauseated, or improperly affected by the nitre, as I hinted in the preface to the last edition, a small quantity of opium (half a drachm) may be added; or cordial ball may succeed.

The following neutral mixture, from Bartlet, may also be made trial of, two or three times a day, a pint each time. Russia pearl-ashes, one ounce; distilled vinegar, one pint; spring water, two pints; honey, four ounces. OR. At one period each day, substitute for the nitre drink, the following: Infusion or decoction of rue and camomile, rather strong, three pints; antimo-

nial beer (See p. 126,) half a pint, or instead two drachms of antimonial powder; camphor one drachm; contrayerva fine powder, half an ounce. Wash the horse's mouth and throat with white water. It is with horses which are high fed, and have been neglected as to exercise and evacuations, and in consequence full of rich and spirituous blood, that the disease attains this ardent and inflammatory state; being neglected, it terminates fatally in a very short period; but the early application of the method just recommended, seldom fails of success, because patients subject to this exalted species of fever are generally sound in body, and have good stamina.

Solleysel notices a fever, which he calls a **PALPITATION OF THE HEART**: the diagnostics, violent heaving of the flanks, and laborious respiration. He advises one remedy, which I think no man in his wits will adopt; namely, to let the horse blood in the neck-vein, and then keep him an hour standing up to the neck in water. I have two or three times seen horses seized with this palpitation, which continues several days. It is sometimes the forerunner of a broken wind, or in a broken-winded horse, the sign of exacerbation of the disease, and approach to its worst stage. Bleedings. Neu-

tral salts, with infusions of the herbs as before.
Tar water.

There is a low inirrative fever, attended with great debility, with which horses are often seized very suddenly. I have paid particular attention to this case, in several instances, without being able to form the least probable guess as to the immediate cause of the disease: in July last I saw several horses afflicted with it. They suddenly, whilst at work, lost their appetite, and their flesh so fast, that in three days they looked like dog-horses. The hollowness of the flanks very remarkable, intermittent pulse, no discharge at the nostrils, nor much alteration as to the other discharges; but they were somewhat less in quantity; hidebound. These horses were recovered by the farrier, and the chief means seemed to be rowels, four or five of which were cut in the belly of one of the horses; I suppose the fever powder, and the usual alexipharmics with blisters or rowels, are proper here: I should either not bleed at all, or only a pint or two. Some years past, I had a horse in this state several months, and the country farrier called the disease, a WILD-FIRE; a run at grass cured it.

I have been since convinced, by a great number of cases, that the disease is *atmospheric*,

occasioned by exposure, in the dog-days particularly, to vicissitudes of the weather, without proper care. Stage and post-horses are in an especial manner, the victims of this species of fever, which not absolutely disabling them, is generally disregarded, until they drop in harness. This is a case of debility, in which the modern veterinarian, with his formidable phlebotomy, gallon measure, and Barbadoes aloes, ought to beware, or he will place himself below the common farrier, whose warm drenches, blisters, and rowels often succeed; there is neither actual, nor hypothetical inflammation to quench, but a weak, preternatural and consuming heat. Clean washed, well dried, light clothing should be used. Antimonial beer; the nitrous drink with vol. arom. spirit and opium, ordered in catarrh. If after a few days, the skin should remain rigid and inflexible, and the hair appear dead, a rowel; more afterwards, if needful. I have seen cases of the kind, in which it was plainly unnecessary and even dangerous, to draw a drop of blood, but will also acknowledge, there are some of apparent debility, in which the moderate use of the lancet, and of mild purgatives, have instant and beneficial effects; but the above are not of them.

Fever may arise from eating unwholesome food, or the constant use of foul water. Mouldy

and rotten hay and garbage, musty corn or bran, soft beans, or too many even of the best beans; all have a tendency to produce an impure and feverish blood. Saline purges and grass.

CONTAGIOUS FEVER is either mild or pestilential, according to the degree of virulence in the exhalation inspired. In the first case, it is extremely probable that the animals affected have all received the contagion from one common source, the air; and not from infection one of the other, the contagious material not being sufficiently strong for that end. In pestilential and putrid fever, ulcers, abscesses, or buboes, are formed, where fresh matter is generated, capable of reproducing infection. Dr. Darwin, supposes, “that the matter of all contagious diseases, whether with or without fever, is not infectious, till it has acquired something from the air, which by oxygenating the secreted matter, may probably produce a new acid.” Perhaps all it acquires is, emission for the miasmata, and liberty of action, since the most noxious vapour confined is perfectly impotent.

IN EPIDEMIC, or MALIGNANT FEVER, the pulse is seldom or never very high, as perhaps the bare impetus of the blood, in an inflammatory state, would itself resist the tenden-

cy to putrefaction, at least for a time. The diagnostics are, slow or irregular pulse, languor and great depression, with alternation of heat and cold. Eyes dull and moist, with moisture and foulness in the mouth, faint appetite, with feeble motion of the jaws, accompanied with an unpleasant grating of the teeth. Excrement frequently dropping in a loose and rotten state. Staling irregular, sometimes very little and with difficulty; at others, the urine pours down suddenly in large quantities, pale, without sediment. Watchfulness and continual standing. Sometimes a discharge of a brownish disagreeable colour issues from the nostrils, but in small quantity. I have copied these symptoms generally from Gibson, but I can answer for his correctness in almost every particular, from my own repeated observation.

The cure usually commences with bleeding, but it ought to be in a moderate quantity; and in this case does not always require repetition. Should the hide of the horse feel much clung together, and bound, insert a rowel or two. Glysters as before, according to the necessity, that the body may be kept properly open. Give the following ball twice a day, and at convenient intervals, a few pints of the infusion of herbs, acidulated with cremor tartar. Diaphoretic antimony, four drachms; camphor,

one drachm; myrrh and Virginia snake-root, powdered, each two drachms; make the ball with syrup of saffron. In case of hoarsness, rattling in the throat, or cough, more blood may be drawn. Watch the discharge from the nostrils which may be critical, and encourage it with warm clothing upon the head and throat. It may be observed that the diaphoretic antimony is pretty nearly the same thing with Dr. James's famous powder, and I have seldom known the above ball and treatment to fail, even in cases of much apparent danger; but for the farther satisfaction of the Reader, I will insert certain other forms in the same intent. Diaphoretic antimony being a useful fever powder and alterative for cattle, I have given the receipt for those who chuse to prepare it themselves, and also a preparation of similar intent, much recommended by Osmer; the efficacy and sudden good effect of which I once saw, in a horse seized with a kind of influenza some years ago. This was a patient of my old acquaintance Doctor Snape, but some years after he travelled post with four horses.

DIAPHORETIC ANTIMONY. Mix powdered antimony with three times its weight of nitre, and gradually put the mass into a crucible just beginning to glow; then, the mixture being taken from the fire, let it be purified by washing

with water, as well from the salts as from the grosser parts less perfectly calcined.

OSMER'S POWDER. Take two parts nitre, and one of antimony, first rubbed together, and deflagrate them over a fire in a crucible, by putting in a little at a time. One or two ounces of this may be given, once or twice a day.

TOURNEFORT'S FEVER POWDER. Hartshorn shavings half a pound, boil in spring water full an hour; then place them in a dish before the fire, till dry enough to powder. Mix them with an equal quantity of antimony, both in powder; put the mixture in an unglazed earthen pan over a slow fire, and keep it stirring with an iron spatula to prevent its caking together; when it ceases to smoke, the process is finished, and there will remain an ash-coloured powder. If desired more white, calcine awhile in a red-hot crucible. Dose from one to two drachms, in a ball with honey and liquorice powder, twice a day, washed down with a horn or two of decoction of scordium, or the infusion of herbs, or gruel, as before. Nitre in about double the quantity of the antimony, may be deflagrated in the crucible with it and the hartshorn: and if to the powder there be added calcined mercury, in the proportion of a scruple

of the mercury to two drachms, a most potent medicine will be produced. Keep it close stoppered up in a glass.

FEVER DRINK FROM BARTLET. Contrayerva and snake-root, two ounces each; liquorice-root, sliced, one ounce; saffron two drachms; infuse in two quarts boiling water, close covered, two hours; strain off, and add half a pint distilled vinegar; four ounces spirit of wine, in which half an ounce camphor has been dissolved, and two ounces Venice treacle; dose, one pint, every four, six, or eight hours. In case of cough and soreness of the breast, give frequently three ounces cold drawn linsced oil, same quantity honey; one ounce salt or cream of tartar in an infusion of rue and chamomile.

In the worst species of PUTRID or PESTILENTIAL FEVER in horses, the diagnostics are as follow: Dimness, with a glazed and lifeless appearance in the eyes, and a discharge from them; running at both the nose and mouth of a brown or greenish colour, and fetid smell, which sticks to the nostrils; no appetite, particularly to drink; putrid breath; excessive debility, so as to stagger when led; trembling; uneven pulse, generally low; skin sometimes hot, then suddenly cold; swelled glands; tumours to be felt under the skin in various parts;

swelled joints; diarrhœa, or scouring of offensive matter dark in colour, of the discharge of which the horse seems scarcely sensible.

As to the prognostics, putrefaction sometimes proceeds so rapidly, owing perhaps to a previous depraved state of the humours, that medicine seems to take no sensible effect, and death happens in a day or two; this I have several times seen. Horses of the best constitution, I believe, very rarely recover from these dangerous fevers, by the mere strength of nature; but if left to themselves, or what is much the same, confided to ignorant hands, they either soon fall, or the disease vents itself in glanders, farcy, or surfeit, of which they never afterwards get thoroughly cured, from the corrupted state of their blood. I do not find that the putrid fevers of horses have their critical days, or those stated times of critical height, assigned to epidemics by Dr. Mead; but that matter certainly merits the investigation of our veterinary practitioners. The favourable symptoms are, an increase of more laudable and better coloured discharge from the nostrils, eruption, or approach to suppuration in the tumours, increase and constancy of natural warmth, returning sensibility and briskness: but if the contrary, and especially if the discharge from the nostrils

turn black and sanious, little hope is to be entertained.

The medicines indicated in this case, according to Gibson, are, the warmest cardiac, diaphoretic and volatile, with bark. Sal ammoniac, salt of amber, salt of hartshorn, and assafoetida. For cheapness sake, the substitutes, camphor, and oil of amber: castor, gentian, zedoary, gallengals, white dittany, bistort, snake-root, diascordium, mithridate. The sweet spirit of nitre is much recommended to be given frequently, in malignant fever, by a late writer.

The intention of cure, is plainly to support nature by proper medicines, and to enable her to cast off the morbid matter, by such channels as she herself shall point out, or to remedy her defect in that particular, by a number of artificial drains. In the emergency of the case, and when a sudden putrid stagnation of the juices is to be apprehended, the most powerful antiseptics must be immediately exhibited; but this involves a difficulty, which I must leave to the able medical practitioner; it sometimes happens that although the bark, and medicines of that class be imperiously demanded, the contra indications, from a load of foul and acrid matter, which renders the stomach totally unfit for the reception of astringents,

are equally pressing, and it is impracticable to relieve a horse by vomit, and attended with extreme danger in malignant or indeed any violent fever, to attempt cleansing the *primæ viæ* by cathartics: of this last I had ample proof some years ago, for I killed two large cart-horses in the same day, in this case, by purging them; as certainly, and almost as expeditiously, as if I had given them a proper dose of arsenic. Again, the cordial and corroborative medicines sometimes given, have suddenly induced so violent a paroxysm of fever, as to destroy the patient in a short time; or on the other hand, the too early and injudicious use of the salts, and bleeding, have often retarded, or totally prevented the crisis; bringing on a scouring, re-absorption of the putrid matter, and death; or a lingering consumptive state, not easily, perhaps never amended. It is not improbable, that those instances of ill success, which Osmer relates, were owing to his too liberal use of nitre.

The use of yeast, in putrid fever, recommended some years since by the Rev. Mr. Cartwright, deserves attention in horse cases. Half a pint, or more, I suppose, may be given every four hours, in some proper vehicle.

In a case of great danger, prepare a strong infusion of chamomile, rue, sage, and horse-

radish, to two or three pints of which, add Peruvian bark, finely powdered, six drachms; myrrh and madder, two drachms each; old Red Port wine half a pint, sweeten with treacle, and give it the horse blood warm, every four hours. On amendment of the putrid symptoms, this medicine must be exchanged for those of a cooling diuretic quality; the following stands highly recommended by Osmer—Crude sal ammoniac and nitre, each one ounce; Castile soap half an ounce; camphor rubbed with a little cold-drawn linseed oil, to drachms; mix with mucilage of gum, for one ball or two, and give the dose three times a day. The state of the pulse must determine the propriety of bleeding at all, or at what period of the disease. Should a critical abscess or eruptions appear, all possible means should be used to encourage these efforts of nature; if not, a number of rowels ought to be inserted in the breast and belly of the horse. In preference to rowels in the common form, it was the practice of the above-named author, to make a number of incisions in any part of the skin, where loose; to separate the skin from the flesh with the finger, and moderately fill the cavity with tow, dipped in digestive ointment, every day; first taking out the former dressing.

Such is the speediest method of bringing on a discharge, in more abundance, with less inflammation, and which may be continued for any length.

The following generals to be observed in Fevers, have just occurred to me : The mouth and throat should be frequently cleansed with vinegar, honey, and infusion of sage.—All cathartics are to be avoided, unless in case of extreme necessity, when the purging salts are to be used ; the glysters to be mild and often repeated. In that profuse staling, and debility which sometimes happens, Gibson directs the drinks to be made with lime-water. Bark is then indicated.—In great restlessness, or very inflammatory symptoms, opium may be given ; or half a drachm of liquid laudanum in the fever drink.—In hectic fever, very moderate frictions may be used several times a day. Sometimes on the termination of the fever, a horse's legs swell and crack ; restraining fomentations, camphorated spirits, walking exercise, according to ability : See latter part of the Chapter on the Economy of the stable.

PLEURISY, PERIPNEUMONY, SUPERFICIAL
OR EXTERNAL PLEURISY, INFLAMMA-
TION OF THE DIAPHRAGM, &c.

Obstructions in the parts specified, from the effects of excessive labour and repelled perspiration, from various causes; a symptomatic fever attends, generally inflammatory. These diseases, not easily distinguishable in dumb animals, are generally referable to the *genus pneumonia*, or inflammation of the lungs and of the neighbouring parts. On pleuretic disease, there is a general agreement between Gibson, and the best medical writers of the present day, both in the pathology and method of cure; for a copious account of it, as it regards horses, Gibson is the proper authority to be consulted, who first discovered the disease in those animals, and dissected some which died of it. It is very rational to suppose, that horses must be liable to all the various maladies of this class, but there is danger in pleuretic pains being mistaken for gripes, for which reason the utmost attention ought to be paid to symptoms.

PLEURISY is an inflammation of the *pleura*, or membrane which lines the inside of the

chest, and in general seizes only one side; the symptoms are, restlessness and increasing fever, which soon attains a very high degree; vain attempts to lie down, with frequent pointing of the head to the affected side; ears and feet burning hot, mouth parched and dry, fever still encreasing to the end; running back as far as the collar will admit, remaining in that position, panting with short stops; disposition to cough; dropping down.

PERIPNEUMONY is a more general inflammation, affecting the whole substance of the lungs, as well as the pleura, or membrane. Many of the symptoms are, of consequence, common: but in the general inflammation, the animal is less irritated, and never offers to lie down, either in the beginning or during the continuance of the disease. Pulse, strong and high, ropy discharge from the nose and mouth, similar in colour and consistence to that in a malignant fever; constant fulness and working at the flanks, particularly on exertion, ears and feet cold, damp sweats, as in putrid fever or gripes.

In the cure of these inflammatory complaints, the grand dependence is in venesection, and, in Dr. Darwin's words, "the lancet must be used
" copiously, and repeated as often as the pain
" and difficult respiration increase. A blister

“ on the pained part. Antimonial preparations. Diluents. Cool air. Do neutral salts increase the tendency to cough?” *Zoonom.* vol. ii. p. 199. I have never observed such effect of the salts upon horses.

If the horse be old and weak, bleed in small quantity and often, that is, twice a day. Rowel in each side the breast and belly, unless the motion of the flanks is likely to prevent the operation of the rowel, then in the thighs. Mild blister with Spanish flies only, over the brisket and foremost ribs. Emollient glyster, if needful, once a day. These applications, with any of the cooling febrifuge drinks before recommended, will generally succeed. It is remarkable in this case, Gibson gives a caution against snake-root as too heating, whilst Bartlet recommends a strong decoction of it as a specific.

Take spermaceti, one ounce, rub with the yolk of an egg; add one ounce Venice turpentine, mix; then take one ounce nitre powdered; and sugar of lead two drachms; saffron half a drachm; chemical oil of aniseeds half a spoonful. Make two balls for one dose, with honey or syrup of poppies, rolling them in liquorice powder. This from Gibson; but I think the sugar of lead ought by all means to be omitted, and it seems to be the only instance

of temerarious practice in that cautious prescriber. I am aware that preparations of lead (See Medical Journal) have been used of late, with apparent impunity and presumed success; my opinion yet remains unaltered, for reasons I am not yet prepared to state. Generally, we have so many efficacious and safe medicines, that it is extreme folly or mere lust of novelty, to venture on those which are dangerous. The balls to be given two or three times a day, washed down with the following drink: Colts-foot, scabious, and ground-ivy, of each a large handful; a handful of barley; figs, half a pound; garlic, two ounces; horse-radish, and assafœtida, half an ounce each; saffron two drachms. Boil in two quarts water, in a close vessel half an hour; pour off clear, and add one pint linseed oil, and honey one pound.

The horse continuing hot and restless, purging glysters may be necessary, with an addition to the decoction, of castor and gum tragacanth, half an ounce each. Light open diet; hot mashes with brimstone and honey; scalded barley. If the horse be strong and sound, finish the cure with a mild mercurial purge or two, or deterrent pectoral balls.

I have no doubt but horses must be frequently subject to *Pleurodyne Chronica*, chronic pains, or stitches in the side, which may be

properly enough deemed internal rheumatism ; should this be suspected, bleeding and a judicious selection from the medicines already mentioned will be beneficial.

SUPERFICIAL OR EXTERNAL PLEURISY is an inflammation of the intercostal muscles, which compose the fleshy parts between the ribs. There is a stiffness and soreness to the touch in the shoulders and fore legs. Method of cure as before. If there appear any tendency to suppuration in the swelled parts, encourage it with ointment of marshmallows, or other proper applications. Or, bathe with equal parts spirit of sal ammoniac, and the above ointment ; or the oil of chamomile. Sometimes the humour will descend, and vent itself in an abscess beneath the shoulder, which is a favourable symptom.

INFLAMMATION OF THE DIAPHRAGM, OR MIDRIF, OR SKIRT, as it is vulgarly called. Cure as before, where the case admits of cure ; but, according to Dr. Darwin, this accident in horses and dogs admits of no cure, since they can only breathe by depressing the diaphragm. In this case the doctor says the mouth of the human patient is frequently retracted ; and, according to Gibson, the horse will be sometimes jaw-set. This inflammation of the skirt is probably the proximate cause of a horse's stopping

and falling in over exertion, as in the common case of hunters and post-horses, inhumanly ridden to death. When there is any hope, bleed a small quantity, and give every three hours a drink of the restorative herbs, with tincture of assafoetida, half an ounce; snake-root, half an ounce; saffron, two drachms; two drachms laudanum. Fine water-gruel is nourishing and excellent. Perhaps volatile aromatic spirit, with opium or laudanum (quantities as before) in good sound beer or Port wine, would succeed beyond any other medicine. If the fever be considerable, add purified nitre, half an ounce. In a day or two, cordial ball in mulled Port or good beer, to one pint of which add half a pint herb drink. On return of appetite, fine fragrant picked hay in very small quantities, and warm mashes of malt and fresh bran. Gentle frictions. Fresh air. Large bed to roll upon.

A Peripneumony neglected may terminate in a collection of coagulable lymph, left unabsorbed in the chest. This kind of dropsy is mentioned by Wood, and another writer whose name I have forgotten. The signs are, difficulty in moving the fore-quarters; if the disease be curable, tapping must be the means.

The following case of *pleurodyne*, happened a few years back: A hale robust woman, of about thirty-five, accustomed to earn her living by gathering water-cresses, became constantly afflicted with pains in her side. She was bled so frequently (although with little relief) that with the loss of blood and poor living, she became quite emaciated, and died covered with vermin. This is the second instance of the *morbis pediculosus* which has come within my knowledge, a symptom which was associated with the fatal disease of the celebrated Pym; and which my old favourites, the cavaliers, superstitiously attributed to the judgment of God, for disloyalty to his Vicegerent.

THE ANTICOR, OR ANTICOEUR,

Is supposed by Solleysel to be an inflammation of the pericardium, or bag which contains the heart, usually terminating in a critical abscess in the chest; according to that writer, “if the swelling ascends to the throat it is present death.” The disease seems to be unknown in this country, and is, perhaps, peculiar to warmer climes. It is of the pleuretic class.

THE STRANGLES

Is a well-known disease, which attacks most colts, and, according to Gibson, usually upon their being first put to labour, terminating in a critical abscess under the jaws.

Young animals are subject to some kind of critical, and non-recurrent disease; for example, the distemper in DOGS, which, in one instance, I observed to pass off in bladdery and fetid eruptions. Warmth and a light diet, with broth, water-gruel, &c. are indicated. Rhubarb and calomel.

The old English term for this disease, was the STRANGULLION; and Blundevil, after Laurentius Russius, and the Italian writers, compares it to the *Cynanche* or *Angina* of the human species, giving of it, however, a very lame and imperfect account. Solleysel styles it a northern disease, and compares it with the small-pox, as those before him had compared it to the quinsey, and it no doubt bears analogy, in many respects, with both diseases. It is one of those spontaneous efforts of nature, to disburthen herself of a superflux of humours, which is final, and does not recur; as to the VIVES, to which aged horses are sub-

ject, they either bear no relation to the strangles, or this latter disorder, in age, makes a different appearance. The matter of the strangles is contagious in a certain degree, since a country farrier propagated the disease by inoculation, and wrote a pamphlet to recommend such unnecessary practice.

The authors to be consulted in this case, are Gibson and Bracken, all our other writers, without reserve, having merely copied them: Those who may find it convenient “to sink” a tedious hour in the serious task of criticism,” may refer to Mr. Taplin on the Strangles; where that most unfortunate of critics, like a true Signior Apuntador, or Knight of the Pestle, has supposed that *comminuted* must necessarily and exclusively mean *pulverised*!

Although the strangles commonly attacks young horses on their being first brought to labour, and the nourishing diet of the stable, at least before they arrive at five years; yet I have both known unbroken colts seized with it in the fields, and horses which have escaped it during their lives. Among colts at grass it has probably been sometimes contagious. It is the custom to suffer a colt to run it off at grass; but I should much rather prefer the taking him up instantly into warm keep, and proper,

care, lest the discharge should be checked by the repulsive property of the cold air, and a part of the disease, from insufficient solution, be left in the habit to re-appear in time, under the guise and denomination of *Vires*. Bracken seems inclined, under some circumstances, to repel the strangles; but those only in which it could possibly be safe practice, in my opinion, are, when the tumour or tumours are small, phlegmatic, and disinclined to suppuration. They may then be treated with repellents as the *Vires*, alterative or purgative medicines being joined. This is no very uncommon case even with colts.

The signs of the approach of this disease, are thrusting out of the nose, hoarse cough, feverish heat, hot breath, heavy, and languid eyes, difficulty in deglutition. A swelling appears between the jaw-bones, increasing daily, until the fifth or sixth day, when the imposthumation breaks, discharging a large quantity of matter. In this favourable case, nothing more is necessary than to clothe the head well, anoint the abscess twice a day with an emollient ointment, and perhaps to enlarge the orifice, in a small degree, when the matter first appears, and to heal afterwards with camphorated spirits. In the interm, the horse's diet should be soft and warm, with warm water, or white water,

plenty of gruel, and the salts as occasion may demand.

Should the disorder arise upward among the glands, and divide itself into several tumours, which mature at different periods, the progress and cure may be tedious: but when the abscess is formed above, nearly about the head of the windpipe, there is a degree of danger, since it may prevent a horse from swallowing for several days: and if suppuration be long delayed, a suffocation may ensue. In this situation the eyes will be fixed, and the nostrils dilated, as in convulsion. Running at the nose is looked upon as an unfavourable symptom. Sometimes the swelling arises on the inside of the jaw-bone, when it is a considerable time in coming to maturity; and the discharge must be evacuated by the mouth.

When it is necessary to promote suppuration by art, unguents and warm fomentations, used three or four times a day, are preferable to poultices in this respect, that the latter are apt to become cold, and by their repelling effect in that state, to undo all the good they may have previously done, a difficulty I have often experienced: but if the attendant will take the pains of replacing the poultices, the instant they lose the necessary degree of heat, there is no method half so efficacious. Receipts for poul-

tices, embrocations, unguents, and preparations of various kinds, will be found by a reference to the Index.

Should the discharge proceed by the mouth, cleanse frequently with equal parts of best vinegar and spirit of wine, or brandy, diluted a little with water, and sweetened with honey. Wash the nostrils with the same, paying all possible attention to cleanliness. Use no premature attempt to open the abscess, but should nature be too tardy, a depending orifice may be made, not too deep, with a lighted candle, or preferably with a small pointed cautery. If the fever run too high, bleed once; should it become hectic and malignant, give the fever drink before prescribed, and in case of much discharge from the nose, that the horse appear weakened, the bark with red wine will be the best restorative; or strong decoctions of guaiacum rendered palatable with raisins, figs, and honey, a quart a day for a week or two. Indurations of the glands remaining after the cure, will be best dispersed by strong mercurial unction, keeping the horse safe from cold: and mild mercurial physic. In the same manner the *Fires* are to be treated.

THE YELLOWS,

OR JAUNDICE of the human species, is a common disease amongst horses and horned cattle, and sometimes associated with other maladies, as fever, catarrh, colic. The idopathic, or jaundice, simply considered, is the primary effect of an obstruction in the common gall-pipe (for the horse has no gall-bladder) from various causes, by which the bile, or great part of it, instead of taking its destined course into the lower part of the first of the small guts, where it is designed by nature to blunt and sheathe the acids of the chyle, regurgitates into the *vena cava*, thence passing into the circulation, tinging the fluids with a yellow hue. The symptoms are sluggishness, want of appetite, rough coat, loss of flesh, and hollowness of flanks, low fever, yellowness of the eyes and mouth, pale or brown urine, crude, loose, and pale excrement, or very dark coloured, and in small balls.

Should the disease have arisen from high keep and indigestion, for want of air and exercise, or timely purgation, and the horse be in tolerable strength, begin the cure by once moderate bleeding, and the next day give the mild

aloetic purge, with calomel, perhaps the most efficacious remedy in the case. After the setting of this dose, proceed regularly with the following infusion, until the disease shall submit, which in a favourable and recent case, may very well happen in a week. The INFUSION: Salt of tartar, two ounces; turmeric, three ounces; saffron and soap of tartar, each half an ounce; filings of iron, three ounces; mix in a gallon of beer (porter is preferable) and infuse in a stone bottle corked up two or three days, shaking frequently. Strain off from a pint to a pint and a half for a dose, milk warm, every morning fasting.—Bracken.

OR: Indian rhubarb, turmeric, madder, liquorice root, sal polychrest, in powder, equal quantities; make balls with castile soap and honey. A common sized ball twice a day. This seldom fails. Glyster once or twice, if needful. Rowel. Water-gruel. Clothing. Air. Walking exercise. Perhaps another mild purge, or slight course of salts, may be necessary to bring the horse into good working condition.

Should the disease proceed from severity of labour, and chronic obstructions, and the liver be affected, the most powerful chemical deobstruents will be required. The external appearance of the horse will shew the state of the case but too plainly. Preparations of steel. Æthiop's

mineral, or the antimonial powder, already given in a former Chapter, must be tried; but the administration of these ought to be in able professional hands. Gibson recommends bleedings, from the inflammatory state in which he has found the livers, on dissection of jaundiced horses.

Frequently there will be but little occasion for medicine, for the horse will be dead in two or three days after being taken from work, when the liver will be found totally decayed; or a dark sanious discharge will issue from the nose and mouth, which the farriers say is the disease changed to the black jaundice, and which is incurable: I have seen both these cases repeatedly, but never that inflammatory species of the disease which Gibson says produces delirium and madness.

The inveterate jaundice may with the utmost propriety take the denomination of CONSUMPTION in horses; a case in which the success of a long course of medicine would by no means be so certain as the expence and trouble. A short course well advised. Salt marshes. Straw-yard with carrots and lucern hay.

Dr. Eagleton Smith records a cure of jaundice, supposed to originate from a wound in the liver, the patient being a soldier, with sheep's gall and water, given after meals; the dose,

half an ounce of the gall fresh, to two ounces water. The digestive power had been totally destroyed by the disease. From a number of cruel experiments on living animals, and some others equally successful and satisfactory upon dead ones, which ought entirely to have superseded the necessity of the former, the Doctor has brought very solid arguments to prove that the gall, not the gastric acid, is the menstruum or principle of digestion in animals. Gall has been long prescribed as a stomachic upon the continent; and may, in all probability, as a powerful assistant in digestion, be found an efficacious remedy in the consumptions of men or horses.

I have now before me, an account of the epidemic cough among horses, or as it was called, the distemper, in 1760, written by Dr Bracken, in his usual roundabout way; and I have reason to believe, it was the last of his publications on that, or any other subject.

The disease, he says, was produced from 'the constitution of the air,' and was productive of violent coughs amongst the horses throughout this island, whether without, or within doors. He saw some fall down in coughing fits, resembling, in the symptoms, the whooping cough of children. The tone deep and hol-

low, the cough remaining some weeks, and even two months.

He first advised those copious bleedings, repeated according to the strength of the animal, so necessary in all inflammatory cases. ‘ Since, in fact,’ continues the Dr. ‘ bleeding is the most sovereign remedy ; because, as to the tribe of balsamics doing much good in inflammation of the lungs, there is little reason to expect it, and those gentlemen who pin their faith upon such practice, are wanting in the knowledge of anatomy.’—‘ The cough among horses is an inflammation of the lungs, as I observed by seeing a horse lately opened, after he died of the distemper in its highest virulence, if I may be allowed the term ; for the spongy bones of the nose and the membrane that lines the nostrils, together with all the other parts, as the brain, &c. were free and sound, excepting a very small discolouration from the sharpness and acrimony of the humours discharged by the nose, and which undoubtedly came from the tainted lungs ; but these were intirely in a mortified state, and emitted that particular smell, by which a blind man that is a practiser, pronounces a sphacelation, or highly gangrenous disposition of the affected part ; but before the mortification had advanced far some of the

blood vessels of one of the lobes of the lungs had broke, and a part of them inosculated with the pleura, or membrane which lines the inside of the ribs, so as to adhere strongly: and this is no uncommon case in violent pleurisies and peripneumonies.’

Some, although not many, he observed, die of this distemper for want of copious bleeding in the first stage; and such as recover without it, provided they are highly affected, may be in danger of the glanders, or a broken wind.

The following is the good Doctor’s prescription in the case, sound enough indeed, although it must be confessed a little in the old woman’s style, both of composition and administration. The seneca root, I remember, in great esteem, and it probably has more efficacy than modern medical fashion is willing to allow.

“ Take of the root called seneca, or rattle snake root (which every good apothecary keeps, or ought to keep) two ounces, bruise it in a mortar, and put it in a pan along with five pints of water, boiled to three pints; and towards the end of the boiling, put in two ounces of liquorice root bruised, half an ounce of saltpetre, and an ounce of cremor tartar powdered: then strain and give the horse one half of this decoction, morning and evening, every third morning and evening for three turns, first put-

ting a rowel in his brescot, and another under his belly, and diet him with soft meats, and warmish water, with oat-meal along with sweet short hay, if he will eat it ; but if not, he must be nourished with liquids, and kept warm, and walked out twice a day, provided the weather is seasonable."

After the horse shall be free from his disorder, the Doctor orders a purge, of no less than an ounce and half of common aloes, with the addition of jalap, sulphur, cremor tartar, terebinthinated balsam of sulphur, and syrup of buckthorn, to be repeated in ten days.

CHAP. V.

VERTIGO — STAGGERS — APOPLEXY — EPILEPSY OR FALLING EVIL — CONVULSIONS — STAG EVIL — LOCKED JAW — NIGHTMARE.

WITH these our farriers make a notable confusion, since they are most of them, to use Osmer's words, "no more than secondary effects," or the symptoms of various diseases. This consideration must fully evince the folly of depending upon advertised nostrums for staggers and convulsions, which medicines are generally cephalic mixtures, calculated to palliate symptoms in some particular cases, but seldom, or with extreme uncertainty, to be of any radical use. All pretended secrets for the cure of these diseases, must instantly appear, to any man of a tolerable share of medical information, to be mere imposition: the best secret (and I am sorry it is yet a secret among many) is a diligent observation of symptoms, and a familiarity with the *praxis* and *methodus medendi* of the best authors. For the theory of apoplectic and

convulsive disease in horses, I refer the juvenile practitioner to Bracken; for the practice and method of cure, to Gibson and Bartlet: there he will find ample satisfaction, but no-where else, unless he meet with better success than I have, after a painful search.

Hippocrates says, that convulsions may proceed either from fulness or emptiness; from plethora and too much blood, occasioned by want of exercise or physic; or from extreme labour, over purgation, long watching, fasting, or wounds. The same may be said of vertigo or giddiness, which may arise either from the turgescency and tension of the blood vessels in the head, or the dilatation and weakness of the vessels, and rarefaction of the blood; of the latter case I can sorrowfully assure the Reader, *haud inexpertus loquor*.

The idiopathic STAGGERS in horses, answers precisely in all respects, whether of cause, symptoms, or consequence, with the apoplexy of the human species. The proximate cause of the disease, is supposed to be a stagnation of the blood in the *plexus choroides*, and other small vessels of the brain, which pressing upon the origin of the nerves, impedes the action of the animal spirits, and puts a sudden stop to the functions of life. The remote causes are, ge-

nerally, over-fulness, richness, or sluggishness of the blood.

The HEAD-ACH in horses, mentioned by all the old writers, is generally a prelude to the staggers, as is also vertigo or giddiness, formerly called the STURDY or TURNSICK, which symptom makes its appearance on their first being led into the air from the stable. The signs of the head-ach are, hanging down of the head, drooping of the ears, dull and watery eyes, dropping of urine, and costiveness. Probably the pain of the head and vertigo arise, at first, merely from association with the nervous coat of the stomach, the original seat of the obstruction, which being neglected, it at last reaches the brain, and a fit of the apoplexy, or staggers, is the immediate consequence. The horse falls suddenly, and although sometimes the paroxysm will in seven or eight minutes exhaust itself, and the animal recover, and arise without assistance; yet, in many cases, unless timely relief were afforded by opening a vein, the only remedy, death would be the consequence in a very short space. The fit is sometimes attended with strong and violent convulsion, at others not; in the first case, the animal rolls and beats himself in a frightful manner; otherwise he lies on his side groaning, and foaming at the mouth, heav-

ing violently at the flanks, his eyes and tail set, flesh trembling and convulsed.

I have seen various cases of staggers; the last was as follows: Walking up Fleet-street, I observed a crowd of people wonderfully diverted with the agonies of a cart-horse beating himself almost to pieces, in, I think, the most violent convulsions I ever witnessed. He threw himself repeatedly upon the foot-path, and was very near going headlong into a shop. To my astonishment, the fellows who seemed to belong to the horse, took no steps whatever towards his recovery, but were making themselves as merry, with the rest of the mob, as though they were enjoying the humane, considerate, and harmless diversion of hunting a miserable and forlorn discarded dog, with a cannister tied to his tail. It was impossible for me to be silent—I called out so often, “Why don’t you bleed the horse in the mouth?” that a tall fellow, with a whip on his shoulder, took offence at my importunity, and turning to me with a countenance in which contempt was exceedingly well depicted, interrupted me with, “Bleed your sister!—And pray now, what do *you* know about the matter?—don’t you see that the horse has got the mad-staggers, and must die.” Well knowing my own foible, and that I had

no hand at a retort, I remained silent. Presently the violence of the fit abated, the horse stretched himself out, shaking and groaning terribly, and with the almost certain indications of the insufficiency of nature to free herself without assistance. The carter now standing by his horse's head, I determined to make one more assay, and the anecdote of a certain great man on shipboard; and "extinguish that illumination," coming that moment across my mind, I resolved also not to make a similar blunder. Accordingly putting myself in the most favourable posture to obtain a hearing, I bawled out as loud as I was able, "—— your —— you
" thick-sculled son of a ——, why don't you
" cut the bars of the horse's mouth and be ——
" to you?" I shall never forget it—these flowers of the mother tongue operated upon the fellow's auditory nerves like a charm; he just cast a kind of vacant look towards the place whence the voice proceeded, whilst his hand mechanically slid down to his pocket; out came his knife, and after a little awkward fumbling, he drew blood in the roof of the horse's mouth. The issue of the blood relieved the pressure on the nerves instantaneously, and the horse giving three or four sobs, was upon his legs in less than five minutes; and was led staggering away to a farrier, to receive, I suppose, a cordial drink,

by way of preparing him for another fit. I could not help maliciously asking my old antagonist, the tall man with the whip, whether all horses died of the mad-staggers? “Well, “Mr. Wise-acre,” replied this acute sophister of the stable, “don’t you see the horse had not “the mad-staggers, or he would not have got “over it.” What a public loss, that such a genius had not been bred a lawyer or a politician! The horse appeared to be high-fed and full of blood, and had been strained hard in drawing a heavy load, in all probability, immediately upon a full feed.

This, like the colic, is plainly the disease of neglected evacuations; and an immense load of fæces or dung retained in the intestines, is generally one of the most powerful causes. Cart-horses particularly will always be subject to such maladies, unless they are occasionally purged; but *venienti occurrere morbo* has been echoed by every writer since Hippocrates, to no manner of purpose.

I am supposing a case of simple apoplexy from plethora, and the subject strong, and full of humours. To grooms and farriers, should any such honour me with a perusal, I must note here, that I do not mean corrupt or tainted humours, but merely a superabundance of the animal juices, in their natural state. Attend

first to the most urgent symptom, which being palliated, deliberate on the cause, and the most proper means of a radical cure. Bleed plentifully, and in several parts at once, if need be, from two quarts, even to five or six, according to circumstances. Repeat, in a less quantity, next day if required. If the horse be cast, raise his head and shoulders with a truss of straw. The fit over, setons may be made in several parts of the body. Laxative glysters, morning and night; backraking previously. Salined water or drinks. Water-gruel plenty, and mashes. If the horse still appear dull and heavy about the head, blow up his nostrils, with a long slender pipe, half an egg-shell full of finely powdered *asaia bacca*, two or three nights the last thing, and keep him from catching cold. Walking exercise. After a week, a brisk aloetic purge: the following week, begin a course of alterative balls, the size of a pigeon's egg, morning and night; a fortnight's or month's continuance may suffice. One ounce of native cinnabar, mixed with half a pound of the cordial ball, is recommended by Dr. Bracken. I have not observed this case to require the assistance of any nervous or cephalic medicines.

IN INFLAMMATION OF THE BRAIN, AND DELIRIUM, copious and frequent bleedings, glysters, and the use of nitre, to the amount of

from six to eight ounces in a day, are the only dependance. Blundevil says he has seen a mad horse bite the flesh from his own shoulders.

Gibson describes the symptom of a horse rearing up, and falling back, on the approach of any one to handle his head, referring the cause to water in the ventricle, which from the erect position of the head, flowing backward, causes a sudden pressure and weight on the *cerebellum* and origin of the nerves. He says, young horses are most liable. I have seen one or two instances of this, which the farriers called the megrim. I was not clearly satisfied, that the head was the seat of the disease; but if so, I should suppose that frequent moderate bleedings, setons, or rowels, and the medicines prescribed generally in convulsions and epilepsy, must be indicated.

In general, THE EPILEPSY is rather to be referred to a weak cause and to inanition, than to plethora. The convulsions do not always proceed originally from the head, but from association with some other affected part. The causes, immediate or remote, may be constitutional debility, excessive exertion, labour unaccustomed, or too long continued without the necessary remissions. The common signs are, reeling and staggering, eyes fixed, insensibility to every thing, turning round, sudden falling

down, convulsions succeeded by stillness, insensibility as if death were approaching, legs stretched out stiff and immoveable, trembling and working at the flanks; horses will sometimes continue in this state for several hours, and at last arise of themselves: a dry white foam in the mouth is generally a favourable symptom, indicating the termination of the fit.

The cure: Bleeding according to strength; but here the utmost precaution is necessary, for as in the apoplexy from *plethora*, and a superabundance of the material of life, too free a use of the lancet can scarcely be made, so in cases of exhaustion, even a small trespass on the quantity of blood, is not repaired for a great length of time. Body to be kept soluble by glysters. The following ball and drink, to be given once or twice a day at first; afterwards, once in two or three days, until the cessation of the disease. Asafœtida, half an ounce; Russia castor pounded, and Venice turpentine, each two drachms; diapente, one ounce; make the ball with honey and oil of amber.

FOR THE DRINK TO WASH DOWN THE BALL. Take pennyroyal and misletoe, each a large handful; valerian root, one ounce; liquorice, half an ounce; saffron, two drachms; infuse in a quart of boiling water two hours, pour off. Or, the following may be used if

necessary, to warm, and invigorate the blood. Castor and asafœtida, of each half an ounce; rue and pennyroyal, of each a large handful; filings of iron tied up in a bag, half a pound; infuse in two quarts boiling water, and keep the infusion close covered by itself. Then take Virginia snakeweed, contrayerva and valerian, each half an ounce saffron and cochineal, each two drachms; infuse in a quart of white wine (or fine sound old ale) in the sun, or by the fire side, covered, twenty-four hours. Mix a pint of the first infusion and a gill of the tincture for a dose once a-day, or oftner, if required.

The above forms are from Gibson, the first who prescribed medicines of this class for horses in the staggers, which were afterwards highly approved by Dr. Bracken, who only objected to the expence. Out of this profusion of medicines, which I have put down for form sake, the judicious practitioner may select some of real efficacy; and in most cases of this kind, laudanum, or opium, in any convenient cephalic drink, may succeed, indeed should never be omitted, the patient being weak. Myrrh and ammoniacum are also recommended by Gibson.

Should the yellows be associated with convulsions, or more properly, the former be at-

tended with convulsions ; the specific medicines, and treatment for each, must in course be joined.

STAG-EVIL, AND LOCKED JAW.

This stag-evil, *tetanus*, or cramp, is sometimes so universal and lasting, that perhaps it ought to be demed idiopathic convulsion in horses. As to the locked jaw, or *tetanus trismus*, it is a symptom or affection arising from sympathy, or consent of parts, generally with a wounded tendon. A year or two since, a horse-dealer, driving his chaise near town, his horse picked up a nail, which penetrated so deep, that he was instantly seized with the locked jaw, or in the common phrase, became jaw-set. I believe the horse died in a day or two.

Gibson speaks as follows of the stag-evil. He has known horses clear their racks in the night, and in the morning drink their water, and eat their usual allowance of corn ; and yet, in less than half an hour, have had their mouths close shut up, and their whole bodies convulsed.

“ As soon as a horse is seized in this manner,
 “ his head is raised with his nose towards his
 “ rack, his ears prick’d up, and his tail cock’d,
 “ looking with an eagerness as an hungry horse,

“ when hay is put down to him, or like a high
 “ spirited horse when he is put upon his mettle
 “ —his neck grows stiff, cramped, and almost
 “ immoveable; and if he lives in this condi-
 “ tion a few days, knots and ganglions will
 “ arise in the tendinous parts; all the muscles
 “ will be cramped, legs stiff, wide and straddle-
 “ ing, as if the horse were nailed to the pave-
 “ ment; skin drawn tight in all parts, eyes
 “ fixed, scarce any ability to walk; snorts and
 “ sneezes often, which symptom increases till
 “ he drops dead, which happens in a few
 “ days.”

I have already spoken of cramp as occasion-
 ed by cold; the ancient veterinarians were no
 strangers to this accident. *Theomnestus* de-
 scribes his favourite horse to have been univer-
 sally cramped and jaw-set, from passing the
 mountains in a deep snow; which he cured by
 raising a diaphoresis in the horse, with a large
 fire in the stable, and by anointing his body
 with a strange composition of an immense
 number of articles, called *Acopum*.

Gibson supposed the stag-evil to proceed
 frequently from worms, or ulcerations and im-
 posthumes in the midriff, or other principal
 bowels. Of the methods of cure, the external
 chiefly remains to be treated. Bleed plenti-
 fully or otherwise, according to circumstances.

Rub into the cheeks, temples, neck, shoulders, spines of the back and loins, or wherever is the greatest contraction, the following LINIMENT. Nerve ointment four ounces; ointment of marshmallows, six ounces; mustard-seed ground, and Flanders oil of bays, each two ounces; oil of amber two ounces; make the liniment thin with camphorated spirits.

OR, as a cheap liniment, mustard-seed fresh ground, with camphorated spirits.

To perform the friction sufficiently, and with effect, will require the exertions of two men, for unless there be almost continual rubbing in a dangerous case, the contraction and insensibility increase, and many horses have been so lost.

Other FORMS OF LINIMENT. Ethereal oil of turpentine, or the common, four ounces; nerve ointment, and oil of bay, each two ounces; camphor rubbed fine one ounce; rectified oil of amber, three ounces; tincture of cantharides, one ounce. OR. Soap liniment, four ounces; spirit of sal ammoniac and tincture of opium, each one ounce. Mix.

WARM BATH, OR SWEATING IN A HOT-HOUSE, WELL CLOTHED. No violence must be used to force open the mouth, which will exasperate all the symptoms, perhaps induce

delirium. Nutritive glysters. Laxative and cephalic ditto. In a very bad case, Gibson had great success with crude opium, injected half an ounce in a glyster, which he afterwards followed up, the mouth opening a little, with a ball of an ounce of Matthews's pill, and two drachms *asafetida*, washed down with warm gruel. I should suppose camphor and nitre in a glyster, probable to be attended with good effects in this case, and would recommend repeated trials of it. Should they be joined with the opium, or laudanum, or warm spiced wine? The intent is to stimulate, to excite warmth and sensibility, and I have been informed that the discharge of cold water upon a locked jaw has been tried, but with very ill success. The above cure was completed with several mild aloetic purges, in which were joined *asafetida*, *ammoniacum*, and saffron; Gibson remarking, that the common plantation aloe was more apt to create, than cure nervous disorders.

Of the PALSY in horses, having no experience, I have nothing farther to say, than that I suppose the foregoing remedies applicable thereto. The same of the LETHARGY or SLEEPY EVIL; this last in a horse full of cold, viscid juices, will be cured by bleeding, rowels, infusions of the herbs, with mustard, horse-radish, and parsley, acidulated with cremor tar-

tar, and sweetened with honey. Brisk mercurial and aloetic purge. Cinnabar balls, or I should prefer sulphur and iron filings equal parts. It should be remembered always to acidulate the cooling herb drinks with cremor tartar or lemon juice, as otherwise they pall and disgust the stomachs of horses; and that generally, infusions in boiling water, are to be preferred to decoctions.

There can be no doubt that horses are frequently troubled with the *ASTHMA NOCTURNUM*, *INCUBUS*, or *NIGHTMARE*, the symptoms of which are those profuse sweats, and twisting and disheveling of the mane, discovered at their uprising in the morning, which the country fellows of old attributed to the jockeyship and hard post-work of Oberon and his queen. The cause, a dense and sily blood, and intestinal accumulation. It is one of the salutary warnings of beneficent nature, which is not always neglected with impunity. Venesection. Purgatives. Exercise. Grass.

CHAP. VI.

ON LOSS OF APPETITE—BULIMIA, OR
 CRAVING APPETITE—COSTIVENESS—
 LAX OR SCOURING—MOLTEN GREASE—
 HIDEBOUND AND SURFEIT—WARBLIS
 MANGE—FARCY—PLICA POLONICA—
 DROPSY—WORMS.

 LOSS OF APPETITE.

THIS arises either from errors in diet and management, want of grass, or from constitutional or acquired debility. If the digestive powers of the horse have been overburdened with accumulated feeds of corn, and at the same time evacuations and exercise neglected, nothing may be required farther than the opposite management. Mash for some days. Course of salts and cremor tartar; afterwards an aloetic purge.

If a weak case, a run at grass, and the mildest purging course on return. Gibson advises to add to the purge of aloes and rhubarb, two

drachms of elixir proprietatis, which is merely an addition of myrrh and saffron, a useful one however. See purgative forms. After the operation of each purge, to give the following drink, warmed in cold weather.

Take a large handful of guiacum shavings; pomegranate bark, and balustines bruised, each one ounce; galangels and liquorice root sliced, each half an ounce; boil in two quarts forge water to three pints, and whilst warm, infuse in the decoction two drachms saffron, and half an ounce diascordium. It makes two drinks. Or, Chalybeate beer with bitters (see Index) once a day. Loose stable. Walking exercise, or daily turning out in yard or paddock.

I have spoken elsewhere of the constitutional appetites of horses. Some are off their stomach at moulting, or shedding their coats, when they require a somewhat warmer regimen and comfortable mashes, with cordial ball daily. Mares, in their horsing time, will sometimes lose their appetite, when a gentle saline course is good, and afterwards cordial balls, once a day for a week. CRIB BITING may destroy the appetite, or induce *bulimia*. The only cure of that vice is to leave nothing in the way to be laid hold on, as in a loose stall with no rack or manger.

218 BULIMIA, OR CRAVING APPETITE.

Solleysel, who was a most diligent and accurate observer, pretends horses sometimes lose their stomachs, from “ little worms lodged
“ within the lips, above and below, which
“ cause such an itching, that he is continually
“ rubbing his lips against the manger. These
“ worms appear like little pushes when you
“ turn back the lips, and are dislodged by
“ cutting the uppermost skin, where they ap-
“ pear, with a sharp knife, and rubbing with
“ salt and vinegar.” I have frequently noticed horses rubbing their lips against the manger in the manner mentioned by this writer, but can pretend to no acquaintance with the lip-worms.

BULIMIA, OR CRAVING APPETITE.

Horses addicted to this, are commonly styled **FOUL FEEDERS**: It may arise from an acid or acrimonious juice in the stomach, the consequence of indigestion, and this may have for its cause either over repletion and want of exercise, or debility of the organs of digestion.

The proper cure is to cleanse the first passages with absorbents and purgatives, and should the disease arise from debility, to use

corroborants, as directed in the last case. Of absorbents, none equal magnesia and salt of tartar, as they evacuate as well as absorb, whereas chalk, and the testaceous powders, are apt to leave a load upon the stomach; but in weak cases, joined with looseness, these latter are preferable. To the purge, No. 6, join diapente, one ounce and half.

Horses in this state will eat clay, wall, or dirt, wet foul litter, or even the dung of other horses. Keep the stall clean, with fresh litter. In some horses this constant desire of eating is merely a habit, and of no great consequence, since you can regulate their diet at will, and they can scarcely devour clean straw enough to injure them.

COSTIVENESS, see Chap. ii. p. 55.

LAX OR SCOURING, OR DIARRHŒA.

There is a nervous diarrhæa in horses, which I hinted at before; those subject to it are generally young, and of a weak and irritable habit: it attends them only whilst at work, when they seldom carry any flesh; the complaint is out of the reach of medicine, but will sometimes subside spontaneously, after a few years use. Many years ago I had a favourite

young horse called Zonic, subject to this defect, with which I made the grand medical tour to no sort of purpose; the only result was, the nag whilst at play was always as fat as bacon, and very firm in body; but a week's work reduced his flesh, and caused him to dung like a cow. These delicate horses require great care and dietetic attention to render them of much use. Strong nutriment, but in moderate quantities at a time. Good old dried beans in their oats, lucern or the hardest and best upland hay; rice mashes, carrots, occasional runs at grass.

The scouring in horses which requires and admits a remedy, may arise from various causes: from an acrimonius ichor in the stomach and intestines, occasioned by the fermentation and sudden dissolution of excrement long retained; from the solution of perspirable matter thrown upon the lower bowels, on occasion of drinking cold water when hot, or other causes of cold; from colliquation of the fatty substance of the body in being over-heated by excessive labour, especially when out of condition; or lastly, diarrhæa may be a concomitant, or termination of disease.

As to the cure, it is a general rule never to exhibit astringents, or to attempt to stop a flux

in the commencement, since the discharge may be merely an effort of nature to relieve herself from a morbid load. Gentle laxatives are rather indicated, and rhubarb from its cardiac and sub-astringent quality, is the sheet-anchor in this case, which I may with truth observe is very familiar to me. In common cases, and indeed generally, astringents are by no means necessary, the effect and proper cause ceasing together; but should the purging continue until the healthy humours begin to be evacuated, and the animal become weak in consequence, no time ought to be lost in attempting to stay the flux. Solleysel fixes the period of waiting to three days, when he says the horse will begin to lose his appetite.

The LAXATIVE AND SUB-ASTRINGENT BALL OR DRINK: Take one ounce fine Turkey rhubarb, fresh powdered, lenitive electuary, two ounces; ginger finely powdered, two drachms; ball with flour, or make a drink with gruel. To be given every other day three times. The above quantity of rhubarb is far too small, but that excellent root is too dear. Two ounces would not be too much. As a substitute, give four drachms of fine aloes, or three drachms aloes and one ounce rhubarb, with ginger, or anised powder and

fine soap. The night after the operation of each dose the following drink may be given warm, if circumstances appear to require it. Diascordium half an ounce to an ounce, in either a tea made of mint, sage, chamomile, and dried red roses; or ale, or gruel.

But should the disease turn out too powerful for these remedies, and the scouring continue with griping pains, loss of appetite, heaving at the flanks, and fever, an efficacious restringent course must be adapted, both in the medicines given at the mouth, and frequent glysters.

RESTRINGENT GLYSTER: Oak bark, four ounces; tormentil-root, two ounces; chamomile, two handfuls; burnt hartshorn, three ounces; boil in three quarts forge water to two; strain off, and add two ounces diascordium; four ounces of starch or ground-rice; and half a drachm of opium. This quantity may serve once or twice according to circumstances. Repeat once a day.

The DRINK, to be exhibited daily: Take aniseeds, carraways, and lesser cardamoms, one ounce each; juniper-berries, four ounces; bruise and put them into five pints mint water, adding diascordium, one ounce; boil to three pints; strain, and add good old Port

half a pint, or strong beer, sweeten with treacle. In case of much pain and twitching in the bowels, two spoonfuls of laudanum may be added.

The diascordium, or species of scordium, is composed of such a variety of cordial, aromatic, and astringent ingredients, that it saves trouble, and is of equal efficacy with the mode of prescribing a number of various articles of similar intent: it may be given in balls compounded with prepared chalk and syrup of poppies. Mashies of malt and rice mixed, should be allowed, water in small quantities at a time, and mixed with rice gruel, or solution of gum arabic.

I have not heard that horses are subject to dysenteries, but in case of a flux of blood with the excrement, Bartlet prescribes the following drink. Diascordium and French bole, one ounce each; Ipecacuan powdered, two drachms; opium half a drachm; dissolve in a pint of warm ale, or Port and water, and give it twice a day. Perhaps it would be better to begin with half the quantity of diascordium. In case of a LIENTERY, or voiding chyle with the excrement, or the aliment unchanged, bark and bitters (see Index) must be brought forward in aid of the other medicines. Or, The following infusion, from Bracken. Take

zedoary and gentian half an ounce each; orange peel, and Winter's bark, one ounce each; fine myrrh in powder, half an ounce; flowers of chamomile and lesser centaury, each half a handful; mace and cloves two drachms each. Beat all grossly together, and infuse two days in a gallon of good Port, or strong beer, cold. Dose, one pint every morning, milk-warm, adding two ounces syrup of dried roses to every dose.

MOLTEN-GREASE, OR BODY FOUNDER.

This is a colliquation or general melting of the *adepts* or fatty substance of the body, great part of which is absorbed, and thrown upon the blood, and upon the intestines, whence it is voided with the excrement. The horse must needs be subject to this malady in a greater degree than most other animals, from his natural propensity to acquire fat in a short time, whence Dr. Anderson is inclined to prefer horse-flesh to beef for the shambles. This disease has ever been more frequent upon the continent than with us, and it may easily be discovered from Bracken's writing, that he had never seen it. I have repeatedly seen it, but not in any very dangerous form. The blood

of a horse taken up from grass will not only have a greasy pellicle or skin upon it, but will cut *several inches deep in fat*; this being of a loose and unsubstantial texture, and not firm like the *pinguedo* or suet, no wonder it will fuse, and be set afloat by extraordinary heat and violent exertion.

Having, in the words above, now given in Italics, expressed myself inaccurately, from inadvertence merely, Mr. Blaine, with a commendable diligence, has not failed to lay hold of the supposed advantage, for which he will find I am under a real obligation to him. He could not surely imagine my meaning to be, that the horse's blood was without coagulum; in truth, I intended to express, that the coagulum was extremely greasy, or impregnated with fat, a state, in which the blood of the horse will be found, in various circumstances.

This is one of those very important instances, which Mr. Blaine has chosen to adduce, in proof of the vast superiority of himself and certain other persons, over our original and practical veterinary writers: but let him speak for himself, and together with the new school, enjoy all the advantages of his victory.—Vol. I. p. 95. Mr. Blaine says, “It is by anatomy we know that molten-grease is no stirring up or melting the fat of the body; which has been a

most gross and dangerous error of long standing; but that it is simply a throwing out of coagulable lymph.”—“It has taught us likewise, that strong physic is dangerous, because what was mistaken for fat is only the effect of inflammation.”—Vol. II. p. 535. “This disease, the *gras fondu* of the French, is in itself one of the strongest proofs of the pitiable state in which veterinary medicine has been plunged till this period. Bartlet, who was educated a surgeon, and should have known better, says, by molten grease is meant a fat or oily discharge with the dung, and arises from a colliquation or melting down of the fat of a horse’s body by violent exercise in very hot weather. Bracken and Gibson had held the same opinion before him, and later writers on this subject have copied their errors.”—Thus far Mr. Blaine, but unfortunately for him, William Osmer, of the old school, and one of those writers, whom I have, with justice I trust, intitled our veterinary Classics, has chanced to anticipate this new discovery.—“Now this melting the grease is nothing more or less than the serous particles of the blood extravasated by too much heat and labour.”—Osmer, p. 128.

Of the above opinion of Osmer, I was well aware, when treating on this disease, and also

of some general objections from both Gibson and Bracken; but I adhered, as a matter of choice, to the evidence of my own senses, in preference to any authority, in the first instance; and in the ultimate, to the established veterinary custom of applying to certain discharges, the term of grease, a custom adopted also by Mr. Blaine himself, when the matter is discharged from the legs.

With respect to the evidence of sense, had Mr. Blaine ever seen a horse under the disease of molten-grease, he might have found, on experiment, that part of the discharges in question, inflammable and liquefiable, which are not the characters of *albumen*, but of real grease; and viewing the matter through the medium of experience, I can see no sort of improbability in a colliquation of loose and unsubstantial internal fat, by sudden inflammation, and its consequent effusion and discharge by an unusual emunctory; nor in the blood itself being impregnated, and, as it were, lined with fat. Gibson gives an instance (Vol. II. p. 186,) which convinced him (apparently incredulous before) of the possibility of a horse's grease being melted. He found "the fat melted and turned into an oil, and drawn off from its proper cells into the blood vessels." He says farther, this disease "is not unlike the greasy

diarrhæas that happen to men ;” that “ the horse’s blood will have a thick skin of fat over it when cold ;” that “ the congealed part or sediment is commonly a mixture of size and grease.” But I have reserved, until the last, that which will doubtless be esteemed, on all hands, my highest authority, for the possibility of the animal oil being absorbed and mixed with the lymph :—it is no less than that of Mr. Blaine himself, who in Vol. II. p. 19 and 20, allows, that the interstitial adeps may become absorbed ; and that when the blood has but a small quantity of chyle poured into it from the lacteal absorbents, the lymphatic absorbents are forced to make up the deficiency, *by taking up the animal oil.*

But we have not yet done with Mr. Blaine on this subject. I have already quoted from his First Volume, the following extraordinary piece of logic.—“ It (anatomy) has taught us likewise, *that strong physic is dangerous*, because what was mistaken for fat is only the effect of inflammation.” Yet, in the case, Mr. Blaine has ordered four drachms of calomel. Now he teaches (p. 761) that the strongest horse should never have more than eight drachms of aloes, many being purged with four ; also, (p. 764) that “ half a drachm of calomel will operate in the proportion of a drachm and half of aloes.”

Thus, in a case wherein his knowledge of anatomy had taught him, that strong physic is dangerous, he has prescribed half as much again in quantity, as, by his own account, the strongest horse ought ever to have. Again, in the very height of an inflammation of the brain, he has ordered calomel and aloes, amounting, by his own standard, to the quantity of twelve or fourteen drachms; a most dangerous mode of practice, in my opinion, under the circumstances. After all, had Mr. Blaine proved the discharges in molten-grease, to be pure lymph, without the smallest admixture of grease, or melted ADIPS, what a miserable and trifling basis, on which to found his boasted superiority. As to his method of cure, it appears to be deduced merely from analogy, and I conceive that both the calomel, and the castor oil which he has ordered, are the most probable articles he could select, to increase that faintness and loss of appetite, which are the never-failing concomitants of the disease.

The attention I have paid, at different times, to both scouring calves and foals, has served to convince me, that Mr. Blaine's prescriptions are extremely improper, if not totally opposite to the intention of cure. This complaint, in sucking or weaning animals, alternates with obstruction and gripes, and as far as I have

experienced, almost invariably requires laxative absorbents; should any thing of a contrary tendency appear to be indicated, oat or wheat meal are intitled to the preference.

There is a captiousness in Mr. Blaine's manner of writing, the obvious intent of which, is to depress the merits of other men. If it were not in his power, intirely to curb this defect, there existed the stronger necessity for accuracy of quotation in its exercise. In *Locked Jaw*, (Vol. II. p. 548,) with a premature exultation, he says, "the older writers on farriery did not understand this disease at all." Yet it is easy to see, how much he is obliged to Gibson on all hands, but most particularly for that medicine which is his sheet-anchor in the cure. He has also adopted my idea, that stag-evil in horses, is sometimes an original disease. Bartlet, he pretends, prescribed medicines to be given whilst the mouth of the horse was shut, but by a little farther and necessary attention, he might have read, that Bartlet had himself made the exception, and advised glysters. In *Strangles*, (p. 635) with the usual flourishes, Mr. Blaine assures us, that "Gibson supposed it resembled small-pox." Had Mr. Blaine been old enough, he might possibly have heard such an opinion from the man himself, but Gibson's writings say no

such thing: he merely observes, that such is the opinion of French and other foreign writers. Dissatisfied, as well as Bracken, with the analogies imagined by foreign writers, and contenting himself with noticing such opinions, the circumspect Gibson acknowledges that all he knows as certain, is, that the disease is “a critical swelling.” Mr. Blaine calls it “a specific fever of horses.” The reader may, if he please, accept this as another shining example of the superiority of the new school. Mr. Blaine never saw an instance of the strangles ending in glanders.—I have several; once particularly, the case of a five-year old bred horse in the hands of a noted farrier near London; another already related.

Greasy dejections may be nothing more than a spontaneous effort of nature; in that case, nothing farther is indicated than to assist her gradually by evacuations, and to pay a better future attention to regimen and exercise; but our business here is with the disease as it arises from over-exertion, and as is commonly the case, when the horse has been unprepared; of course, horses are most liable in the heat of summer.

SYMPTOMS, knocking up at work, refusal of food on being led in, drooping of the head and ears, universal sweat, trembling, heaving

at the flanks, and turning the head towards them as if griped, the excrement soon appears greasy, and a scouring comes on in a few hours; afterwards stiffness and inaptitude to motion, perhaps swelled legs. When a boy, I rode a horse with a great deal of loose, gross flesh about him, twenty-one miles in a warm summer's morning, and reduced him to pretty nearly the above described state. Many post-horses under these symptoms are neglected, and nature in a few days rises superior to the disease in a certain degree, but only to submit to it after a while in the more formidable shape of surfeit, farcy, or glanders. Thousands of unfortunate creatures are made wretched for the poor remainder of their lives, and sacrificed only for the want of a week's respite, and a few shillingsworth of medicine.

The CURE: Bleed plentifully at first, if there be sufficient strength, and repeat several times in more moderate quantity. Emollient glysters with lenitive electuary, and a small quantity of linseed oil. Give the febrifuge drinks with cremor tartar and fine rhubarb. Bartlet advises to finish with balls of camphor and nitre, two ounces of the latter, one drachm the former, they may be compounded with aniseeds, honey, and Castile soap. OR, a course of the rhubarb and aloetic purge, with

six drachms diapente. Or, the following alterative purge three or four times. Fine aloes six drachms; powdered guiacum, half an ounce; diaphoretic antimony and powdered myrrh, each two drachms, ball with syrup of buckthorn.

Sometimes three or four setons or rowels may be necessary in this disease, the horse being very gross.

HIDEBOUND AND SURFEIT.

The common term hidebound is applied to a tightness and adhesion of the skin, occasioned by obstruction or deficiency of fluid in the cuticular vessels. It is a general symptom of the unthriftiness of animals, as an openness and a warm and moist feel of the hide, is of their health and thriving condition. As a mere symptom, this defect will of course follow the fate of the parent disease, that our present business is only with the tightness of the hide as it exists apparently by itself, and is generally owing to want of care and nourishment, or imperfect concoction of the aliment, arising either from obstruction, or the debility occasioned by unremitting labour. The cure, immediate grass; or, good stable care with cloth-

ing, plenty of friction, and gentle walking exercise, with the precaution of not over-feeding at first. Carrots, boiled barley, and mashes. One moderate bleeding, or instead, what sometimes I have seen very successful, one rowel. The mildest alterative powder, a fortnight, then a dose of aloetic physic. The complaint neglected will degenerate into a SURFEIT. This term, of French derivation, to speak correctly and according to etymology (a usage which, however, is never strictly observed in any science) ought to be applied only to an animal *over-done* and glutted, but it is of universal application to those of a lean, hidebound, and unthrifty appearance, particularly when their coats look dead and rusty, and do not lie smooth. Its confirmed state is attended with eruptions, and sometimes swellings of the legs and joints, and in the latter case is usually to be looked upon as the termination of some chronic disease, or a consequence of the improper use of mercurial physic. Surfeits are styled DRY, or WET; in the former, the skin is covered with a thick dry scurf, with scabs, and small hard tumours like warbles; in the latter, a sharp briny ichor issues from the poll, neck, withers, quarters, and hinder legs, in the bend of the hock, causing great stiffness and inflammation; this is probably analogous with

scurvy in the human body, and will often attend cart-horses with foul and unwholesome blood, at stated periods. The too free use of beans will produce the wet surfeit.

The cure of SURFEITS depends almost entirely upon internal alteratives with a very small attention to external applications: as to the latter, perhaps, frequent cleansing with a good strong lather of soap, is generally sufficient, but where the eruptions are hard, and fixed, and the scabs do not peel off, I know of nothing better than to rub them frequently with the strong mercurial unction, keeping the horse well clothed, and giving warm water in the interim. The warm bath, if the animal be strong. It is necessary here to give a caution against the common practice of the farriers, which is to bleed, and treat diseases of this class with violent external repellents only. I lately saw an instance of a Friezland coach-horse, in such a surfeited state from over-repletion and want of exercise, that he was covered with eruption, and the superabundant humours seemed ready for extravasation in every part of his body. As fast as the doctor repelled the humour in one part it re-appeared in another; but I understand he succeeded at last, in *killing it*, without the least change as to the diet of the horse, or the assistance of any internal remedy.

It is true, the virulence of the humour might have spent itself in those irruptions, but still no certain reliance could be placed, and there must have been great probability of the danger of its translation to some noble part, perhaps the eyes.

Supposing the case similar to the example just given, that is to say, a real surfeit from glut of provender, bleed, and give mashes; in a few days, mercurial physic; the week after, repeat, and finish the cure with alteratives. In a weak case, mild alterants, sulphur and iron filings the best, with improvement of diet, as already stated: if the relic of some disease, alteratives powerful in proportion to strength, and long continued; afterwards two months grass.

WARBLES.

Authors have failed in making a necessary distinction between those tumours called Warbles, which are the consequence of external pressure of the saddle, and those which arise from an internal cause; namely, the heat and richness of the blood. These appear on the back and buttocks, denoting the want of coolers and attenuants. Salts; if the eyes are in-

flamed, bleed. Humour-blindness is preceded by a succession of Warbles, as I have often remarked; they have also been formerly styled a flying farcy.

THE MANGE,

In animals, like the Psory, or Itch in the human species, is “a contagious prurient eruption,” arising from a thin, serous and acrimonious state of the blood, and an obstruction in the pores or excretory ducts of the miliar glands, where the perspirable matter being detained, becomes ichorous and corrosive, and at length, frets its way through the skin, making it raw or wrinkled in different parts of the body. Wood, who affirmed that the mange did not proceed from vitiated blood, but from insects hatched in the furrows of the cuticle, only mistook the effect for the cause, and had not considered that corrupted humours were a proper source, or matrix for the generation of ova or eggs. Like the Italian Dr. What-d’ye-call-him, he naturally supposed the horse might as well be fly-blown without-side as within: nor can I altogether agree with Gibson, who asserts, that the mange is seldom more than skin-deep. My reasons are, that if you keep

a horse very poorly, he will be mangy; but if you line his inside well, however you may neglect him externally, he will not generally be mangy, excepting, perhaps, the case of your being a lime-carter. Twenty years ago, on the recommendation of certain stable-œconomists, and in the teeth of common sense and my own experience, I undertook the wise project of feeding labouring cart-horses upon carrots and oat-straw, and other vegetable trash, for which I was properly rewarded in a short time, by the trouble of curing them all of the mange. This disease, or morbid result of poverty and filth, suffered to arrive at an extreme degree of inveteracy, degenerates into a marasmus or consumption, absolutely incurable.

The mange, if a mere cuticular affection, induced by an external cause, or caught by contact of a diseased horse (which last may happen from rubbing against such an one, or wearing infected clothes, or standing in an infected stall) is speedily cured by external applications, with the aid of a dose or two of physic; but when the disease originates in the mass of humours being vitiated, the cure will require a greater length of time, and a larger share of medical assistance. As to internals, the method of cure is so similar to that of surfeit, that I have no need to repeat it, nor is any reader ignorant that brimstone, whether

internally, or externally, is here the grand specific.

In a slight case, strong tobacco infusion (see Index) with one third stale urine, soaked well into the affected places, may succeed; but as an efficacious unguent, take the following: strong mercurial unction, half a pound; brimstone finely powdered, four ounces; black soap, two ounces; crude sal ammoniac, an ounce and half; make the ointment with oil of bays, or of turpentine: OR, Tar, gunpowder finely beaten, black soap, and oil of turpentine. In cases of long standing, where the ulcerations are so extremely foul, or, if you will, the animalculæ, so strong and vigorous as to resist all moderate applications, the following ointment may be ventured: burnt allum and borax, in fine powder, two ounces each; white vitriol and verdigrease, powdered, of each four ounces; put them into a pot over the fire with two pound of honey, or lard and honey, equal parts, stirring till they are well incorporated; when cold, add two ounces strong aquafortis. But I should conceive the first ointment equal to almost every case, which being used at night, the sores, if need be, may be washed twice a day with the sublimate water. Take half an ounce of sublimate, in powder, dissolve in a pint and half of water. Mash,es, &c. in course; clothing and

every precaution against cold. Finish the cure with well washing in plenty of soap and warm water, rubbing thoroughly dry with linen cloths.

THE FARCY.

Is a disease of the blood-vessels, whereby their coats and integuments are thickened, and the veins drawn tight like cords, small round hard tumours, in size resembling grapes or berries, and very painful to the touch, springing out along the veins in various parts of the body; these not being discussed, suppurate, and degenerate into foul and malignant ulcers. The cause exists in the blood, either from its too great heat, or its depraved and corrupted state: the remote cause, as has already been assigned to diseases of the same class, neglect or constitutional tendency. No doubt but the disease, in an inveterate state, must be infectious, the matter of the ulcers having acquired a very exalted degree of putrid acrimony. The various species of farcy are not worth a particular description, since they are all essentially the same disease, differing only in degrees of malignancy, and requiring medicines of the same class, properly apportioned in strength. The

buds or tumours, and painful stricture, are a sufficient characteristic of this malady, when local, and in its commencement. I have seen the local and spurious farcy, mentioned by the old writers, as occasioned by spur-galling; it chiefly happens to starved and hidebound horses, from acrimonious blood extravasated, which turns ichorous, and spreads a humour along the belly. It is cured by any of the milder applications used in the mange, assisted by a certain specific called OATS, exhibited in liberal doses.

The old farriers had such strange methods of curing diseases, that they seem at this time of day, to have been the mere vagaries of madmen. In the farcy, after stitching up some devilish medley in the ears of the animal, they put him to hard labour upon straw and water! And both the ancient and the present have committed a great error in this case, by overlooking the cause, and confining their attention solely to the visible effects: they expect too speedy a cure of a chronic disease, and instead of altering and purifying by degrees the humours, where the disease is grounded, they are solely employed in coring, and cauterizing, and poisoning the skin.

A farcy taken in time, may be cured by discussing the tumours, and not suffering them to

come to suppuration ; a confirmation of which I saw some time ago, in the case of a running-horse, which had been surfeited and neglected. When the buds maturate and turn ulcerous, the virulent matter generated is soon absorbed, and putrefaction goes on rapidly, both externally and internally ; a general rot ensues, sometimes with dropsical swellings in the belly and legs ; the case is then incurable.

THE CURE. In the mild farcy, bleed, and next day give an aloetic purge, a mild mercurial one, or salts, according to state of body ; if much heat, the latter purgative is ever to be preferred. After setting of the physic (which may be again required, as well as bleeding at intervals) begin and adhere strictly to an alterative course (see Alterants) until the tumours shall be effectually dispersed, how long soever that may be, whether six weeks or twelve : bathe them in the interim once a day, with doubly camphorated spirit and oil of vitriol, equal quantities, mixed ; to one pint of which add two ounces spirit of sal ammoniac. Or, a strong decoction of hemlock, horseradish, and the roots of burdock. Rub the chorded veins every night with an unction of turpentine and ointment of elder, or strong mercurial ointment, if there be no danger of cold ; or Venice turpentine, four ounces ; quick-

silver, six drachms ; mix. Constant moderate labour, by draught, if convenient, will be beneficial. The warm bath is very efficacious in dissolving the knotty tumours, and cleansing the skin; and should be used, where such a convenience can be had, in most stages of the farcy.

The following drink to purify the blood, will be serviceable in every stage of this disease, and indeed in many others, where alteratives are required ; but as where medicines must be long continued, it is exceedingly fatiguing both to the horse and man, to be constantly drenching and balling, there seems a necessity for giving drinks in the water, and powders in the corn, first mixed in a little wetted bran. Take leaves and bark of elder, inner bark of elm, sharp-pointed dock-root, well cleaned, and madder, half a handful each ; turmeric, and Monk's rhubarb, bruised and sliced, liquorice and sassafras, half an ounce each ; rosemary and rue a handful each ; boil in three or four pints of water to a quart, in which dissolve four ounces cremor tartar, and sweeten with honey. This, however, out of form, once for all ; since few will be at the trouble of these decoctions, when nitrated and salined water, of pretty nearly the same effect, is procured at so much less trouble.

Should the tumours yield to the pressure of the finger, and yet be slow to discharge, make incision with the knife, and dress the ulcers with brandy and ægyptiacum mixed, or a salve of crude mercury, black soap, and mustard seed. In an inveterate case, rub once a day, or two days, into the chorded veins and swellings, the following: linseed oil, half a pint; oil of turpentine, and petre, each three ounces; tincture of euphorbium, half an ounce; oil of origanum, and double aquafortis, half an ounce each; after the ebullition is over, add two ounces Barbadoes tar. Should the orifices of the buds be choked up with proud flesh, or the skin so thickened over the ulcers, that the matter cannot find vent, make incision with a sharp pointed hot iron, and touch the proud flesh with oil of vitriol, aquafortis, or butter of antimony; or with a salve of crude mercury incorporated with aquafortis, or wash with the sublimate water. As to internals, when the most efficacious measures are necessary, the turbith mineral may be ventured in small doses, one scruple to half a drachm, in cordial ball, or Venice soap, every night, or every other night, for a fortnight, then abstain a week and repeat: or in two drachms of philonium, should the horse be sick; or with four or five grains to half a drachm of opium or camphor; great care being taken of cold,

a very necessary caution, both with regard to externals and internals; to which another equi-necessary may be joined, that of avoiding the large blood-vessels, joints and tendons, in the application of corrosive medicines. Should the mouth become sore, and the horse begin to slabber, from the use of mercurials, desist, until that symptom be removed by gentle purges; then proceed with the mercurial course, in smaller, and more properly adjusted doses. OR, Butter of antimony, and bezoar mineral (from Apothecaries Hall) one ounce each, mix and powder, and beat it up with half a pound of cordial ball. Dose, the size of a walnut, on an empty stomach, the horse fasting three hours after, every day for three weeks. Moderate walking exercise. OR, *Antehecticum Poterii*, two drachms to half an ounce, every other day, in cordial ball. OR, The most powerful alterant (see that Chapter) with cinnabar and powdered guiacum. There is no curable stage of the disease which these medicines will not effectually touch. To recover the lost hair, rub the bald places twice a day with an ointment made of honey, ointment of elder, spermaceti, and French brandy: the first ingredients may be incorporated over a clear fire, and the brandy added afterwards. In a livid

and unfavourable appearance of the buds, indicating a cold and languid state of the juices, tending to putridity, omit the deobstruents, and give the bark, once or twice a day, for four days. Take finest Peruvian bark, in powder, one ounce; steel filings, or prepared steel, two drachms; powdered gentian, half an ounce; juniper berries, and chamomile, powdered, half an ounce each; ground ginger, a tea-spoonful; ball with any astringent syrup. Would a small quantity of opium add to the efficacy of this medicine? Or, Cordial ball with steel may be used, until sufficient warmth and vigour be restored to the blood, and better colour and disposition to the ulcers. Strength enough being left, the cure may be completed with gentle cleansing purges. Grass, that of the salt-marshes preferable.

I have just heard, that The Society of Health at Paris, are at present employed in making experiments with the internal use of the Muriate, and the Carbonate of Barytes, recommended by our Dr. Crawford in Scrophula: in consequence, they have appointed citizens Huzard and Biron, of the Veterinary Class, to try the effects of this active and powerful medicine upon horses. The result has been unfavourable. Some horses in a confirmed FAR-

cy took two drachms a day each, both of the muriate and the carbonate, which in a very short time seemed to make a complete cure: in less than three weeks, however, they died, without discovering, on being opened, any signs of the action of the medicine. Others have since died without any previous tokens of sickness. It is probable the experiments were made with too large doses, and that half a drachm a day, or every other day, might have succeeded. Gibson committed nearly a similar error, by giving only one drachm a day of the turbith, which has been often enough used since, in small doses, with all manner of safety and success, both in farcy and against worms. Nor need we be at a loss for medicines of sufficient efficacy, either for the scrophula or farcy; all we want is moderation and patience in their exhibition; specifics to cure chronic diseases extempore, are not in nature, of course not discoverable.

The farcy has been compared by Solleysel, to Syphilis: by Gibson, to St. Anthony's fire; and by Bracken, to the yaws; with all, and each of which, it certainly bears considerable analogy.

According to Mr. Blaine, "we are certain that the virus of glanders originates in farcy." There is one thing, of which we are infinitely

more certain ; namely, that Mr. Blaine is extremely attached to new hypotheses, and somewhat too hasty in his decisions. To this gentleman we owe the important discovery, at second hand indeed, that pigeons, although not belonging to the class *mammalia*, actually secrete milk!! Vide Vol. I. p. 164. There is no doubt but these nations are indebted to Mr. Blaine for all the pigeons' milk which has been secreted since the publication of his book. He also credulously reports the by-gone, and practically disproved notion, that cow-pox originates in the grease of horses; a notion, of the absurdity of which I had an early occasion to speak in the Medical Journal; but without intending the slightest reflection on the respectable and patriotic Jenner, who so well merits the gratitude and remuneration of his country. With regard to the affair of the pigeons' milk, they who keep dairies of that species, well know, that the milk proceeds from the (technically) *soft meat*, which, from instinct, the pigeons prepare in their crops, several days previously to their period of hatching.

That the inoculated virus of farcy should have produced symptomatic glanders, can excite no surprize in those, who previously knew, both that the disease is infectious, and that a glanderous discharge from the nose is an occa-

sional concomitant, and a very common termination of an inveterate farcy. If a bare affinity in the family of diseases were to constitute identity, it would, in truth, much retrench the compass of nosology, and render useless a great part of the labours of the illustrious Cullen. I have seen and considered much on the glanders and farcy, and am thoroughly convinced of having witnessed an instance of the latter, in an human subject. The ancient Romans knew this disease in horses, and from them we derive the name. I believe a similar cause, obstruction in the lymphatics, may produce either disease, but there are yet causes of farcy, which will never produce glanders: these, not improbably, may hold some analogy with such as are commonly called scorbutic affections, in the human animal. It is a pity, that nature should absolutely compel us, in spite of hypothetical ingenuity, to hold glanders and farcy as distinct maladies, by permitting us to cure the latter only, whilst the former remains an everlasting opprobrium of the veterinary art.

PLICA POLONICA,

Is a contagious disease, affecting the human and other animals, particularly horses, wolves,

and dogs, in a certain district of Poland, in which the hair is said to become alive and bleed. It is chiefly confined to infancy and youth. Previous symptoms, spasms, pains in various parts, slow fever, and diseased eyes; all which cease on the irruption of the *Plica*. The hair grows rapidly, and there is a copious secretion of mucus at the roots, by which it is inextricably matted together. A fetid smell is emitted, with swarms of vermin. The Poles never attempt any remedy, supposing the disease to be a salutary effort of nature, to disburthen the body of a load of peccant and dangerous humours.—*Manchester Memoirs*. I should suppose bleeding, antimonial, and mercurial alteratives, with the warm bath, must be the proper remedies, if any: and that to their neglect of medicine, the Poles owe not only the continuance, which it seems is sometimes for years, but even the existence of this filthy disease.

THE DROPSY,

Both universal or diffused, called *anasarca*; or local and encysted, styled *tympanum*, or *ascites*, happens to horses; proceeding from a sluggish, poor, and watery blood, the consequence

of some previous disease, or of neglect and unwholesome keep, either within doors or without; as feeding entirely on grains, washy latter-grass, remaining abroad in continual rains, and the like. Different parts of the body will be covered with soft inelastic, or œdematous swellings: but the belly, sheath, and legs, are sometimes very hard, and distended to a great size. These last must be superficially scarified with a sharp knife, and the water evacuated. Next give a purge or two of aloes and jalap. Strengthening medicines if necessary. Improved diet and care.

In an obstinate case, drastic purges are specific, and a drachm of gamboge (or proper quantity of scammony) may be given with an ounce fine aloes, made up with cordial ball and syrup of buckthorn; or for want of cordial ball, with saffron, cloves, nutmegs, and oil of aniseed, working off the purge with as little water as possible. The gamboge should be first rubbed with a little fine oil, and then powdered exceedingly well in a mortar, or bits of it may stick among the folds of the guts, and cause intolerable griping pains. Give between the purges every night, or night and morning, a pint of the following drink; black hellebore, fresh gathered, two pounds, wash, bruise and

boil it in six quarts of water to four; strain off the liquor, and put two quarts white wine, or fine old beer, upon the remaining hellebore, and infuse warm forty-eight hours, shaking often; strain off the wine, mix it with the water, and keep it corked up for use. The purge may be exhibited once in ten days, repeating it as often as necessary, and the cure completed with restoratives, bark, steel, and bitters, or chalybeate beer, as before directed.

When the waters are lodged in the abdomen, or between the inner rim of the belly and guts, then the disease is called A TYMPANY, because the belly sounds like a drum. An infusion of *crocus metallorum*, or *vinum benedictum*, is said to be a powerful specific in this case. But tapping, the most efficacious remedy, is neither difficult nor dangerous, in horses and cattle. It is scarcely necessary to observe, that cattle should be allowed little or no drink in this disease, according to the late John Wesley's direction in his *Primitive Physic*; whose cure for the dropsy, of biscuit and raisins, with total abstinence from liquids, was borrowed from Harman Boerhaave. Of dropsy in the chest, I have already said a few words, which was quite sufficient, since no one has ever pretended to cure it.

WORMS.

The only pathognomic, or peculiar symptom of worms, is the horse's rubbing his tail often, without any apparent humour or eruption; the general signs are similar to those which denote griping pains. Farther, a horse troubled with worms will eat heartily, and yet be always lean, and out of condition, his coat staring as if surfeited; a sickly paleness of the mouth and tongue, and cadaverous smell; he will be tucked up in his flanks, and occasionally heave much, turning his head now and then towards them, and striking his belly with his hinder feet. The dung will be often mixed with a yellowish matter, like melted sulphur, or be otherwise discoloured, foul, and fetid. Worms, and the slimy spawn of them, will be sometimes ejected, but not always.

It is laughable to observe, how industriously all our authors contend against equivocal generation; which, in good truth, I am neither prepared nor disposed to defend at this moment. *Ova*, for the necessary purpose of worm-hatching, must be received into the body, at the one end or the other, at any rate. Thus the learned Dr. Gaspari, as Vallisnieri gravely

assures us, one day by chance, and mere accident, enjoyed the rare and uncommon opportunity of witnessing the forcible entry of a large fly, after a number of ineffectual attempts, into the anus of his mare, feeding in the field, for the purpose of finding a warm and convenient birth to deposit her eggs. Alas! had the good Doctor been an adept in the noble English practice of figging, experimentally convinced of the contractile force of the *sphincter ani* in a horse, and the difficulty of penetration, he would surely have found another passage into the body for those eggs, which he was determined, at all events, should be there carried and deposited. Whence come the parental *ova*, Doctor, of those maggots which are hatched in a foul and neglected ulcer, or a chandler's nose? How much easier it is to say, that all putrescent animal fluids spontaneously produce *animalcula*, and save ourselves the trouble of playing at 'I spy' with flies. Putrefaction and reproduction, death and life, life and death, are vicarious: they serve to form nature's *metempsychosis*, or merry-go-round; all we know, all we can know, and therefore all we ought to know: they who dream that more is, and ought to be known, may, as has always been the good fashion, first dispute the point, and then fight it out: I desire not to be of the

number of the combatants; I beg to be excused, and only to have permission to laugh, whilst they dispute and fight.

Mr. Blaine, however, is too fashionable a writer, and too vigilant and eager to catch the *dernier gout* of science, to be put off with the stale conundrum of the two Italian Doctors; but as mens' heads are everlastingly caught by the marvellous, he could do no less than join the good company, who, weary of the old, were determined on a new fly-trap, and that proportionally less ridiculous than the old, inasmuch, as by the former, the eggs, or the young fry, reach the destination of philosophy, by the fore, instead of the back door! It is really pleasant, to read with what gravity Professor Blaine details, how "the fly to deposit her ova is seen to hold her body upright, and preparing an egg covered with a glutinous liquor, she rests for a moment on a hair, and deposits it!"—how "she rises and prepares another, till some hundreds are so deposited;" and how at last "these *are said* not to be carried into the stomach, till they *become worms*, which takes place in a few days." What! I suppose the new hypothesis could not have been warranted sound, or would not run quietly on all-fours, unless the eggs had patience to wait un-

til they became worms. The sheep too have so little sensibility in the “inner margin of the nose,” as to suffer the fly *astrus*, a most irritating insect, to deposit its eggs there, and the larvæ of them afterwards, to “creep up into the frontal and maxillary sinuses.” They must have a plaguy intricate journey, methinks, and possess much sagacity, considering their tender age. Well—thus far I am satisfied! I only desire to know the pedigree of those flies, from the eggs of which proceed the maggots that are found in putrid sores; of the cancerous breast, for example, without meaning the *hydatides*; or the worms sometimes found in the warbles, or small tumours, on the backs of horses and cattle, in the winter season, and whilst kept in the stable.

The remote cause of worms, is a colluvies of indigested matter, which for want of timely evacuants, putrefies; or a natural predisposition in the animal fluids to putrefaction. I have known many people to whom it is as natural constantly to produce worms, as hair, and who are yet always taking worm medicines. The defect is generally inherited by their children.

In the CURE, mercurials alone are to be depended upon, and as in proper hands, they are perfectly safe, even for human infants, it is

truly unprofitable trouble to use any other means. There is a notion among horsemen, that common aloes, from the drastic roughness of its operation, is a more potent vermifuge than the succotrine; it is groundless, as I know by experience; and by the opinion of one, whose experience to mine, in this particular case, must have been in the proportion of one hundred to five at least; I mean Gibson. Riverius says, that OIL will suffocate all kinds of worms; if so, it surely deserves notice as an anthelmintic.

OIL GLYSTER. Prepare a strong decoction, or infusion in boiling water, of tobacco, savin, wormwood, rue, garlic, and coralline, if the latter can be procured; to one pint of this, add a pint of linseed oil, and inject the mixture, blood warm, the last thing at night. Repeat it or not, at discretion, at two o'clock next day; and at night give the horse two drachms calomel, in very fine powder, made up with cordial ball, or for want of that with powdered aniseeds, and a little ginger and oil; or with diapente. In the morning give a purge with fine aloes, jalap, and myrrh, balled up with hard soap, and rectified oil of amber; mild or strong according to circumstances, particularly with relation to the effects of the glysters and the mercury. This physic being repeated every

ten days, with the glysters intermediately at pleasure, the course will eradicate and sweep away the whole generation of worms, together with that collection of foul materials of which they are made. If the calomel should be found too mild, the more powerful preparations of mercury may be substituted, as diagridium or turbith; scammony also is very efficacious. Clothe well, and beware of cold. Should the subject be too much reduced, and the powers of the stomach debilitated by the necessary force of those powerful specifics, recruit with bark, bitters, and steel as before repeated; or two drachms to half an ounce steel filings, in the corn, for some weeks; or grass. Where the time and attendance cannot be spared for the above regular course, it has always been usual to give worm-powders, or other alteratives, in the horse's feeds; and æthiops has been the common vermifuge basis from the earliest days of Gibson: Captain Burdon was bold enough to order two ounces of it for a dose. I know not how, or by what accident, it has happened, but the æthiops has often deceived me, particularly of late, passing forth of the intestines unchanged. I would therefore recommend a trial of alkalized or calcined mercury, half a drachm, to a drachm of which, finely powdered, may be given every other day, mixed up with

a large spoonful of powdered guaiacum, turmeric, and aniseeds, and continued a fortnight to a month, the usual care being taken of cold, and warm water given if possible; the glysters also may be used. This method is very suitable for draught horses.

Three grains of *asafætida*, with two of corrosive sublimate, in pills, two or three a day, have proved the most powerful vermifuge in human medicine, for adults. This may be tried with horses, in the proportion of a scruple or upwards of sublimate, to a drachm of *asafoetida*.

According to the old farriers, there are four different species of worm generated in the body of a horse. “ Little short worms, with great
“ red heads, and long small white tails, called
“ BOTTS. Short thick worms with black hard
“ heads, all of a bigness, like a man’s finger,
“ called TRUNCHEONS. Worms from six to
“ eighteen inches in length, and as thick as a
“ man’s finger, which are, the ROTUNDI, or
“ EARTHWORMS; and red MAW-WORMS, resembling wood-lice, but with fewer feet,
“ having thick, short, sharp heads, velveted on
“ the back like a bat, and made up of several
“ folds. These last, it is asserted, will perforate the stomach of a horse, and kill him: but it is not yet determined, I believe, whether

worms can really exist in the stomach of a living animal; that they are found there after death, every one knows, but Bracken thinks it probable they make their way thither from the *duodenum*, after the vital functions have ceased.

CHAP. VII.

ON THE DISEASE OF THE KIDNEYS, REINS,
 AND BLADDER—CHOLIC—BURSTENNESS
 —FALLING OF THE FUNDAMENT—GO-
 NORRHIÆA, AND MATTERING OF THE
 PENIS — FALLING OF THE PENIS —
 VENEMOUS BITES — SWALLOWING OF
 LEACHES, HEN'S DUNG, &c.

I KNOW not that horses are subject to nephritic disease, or to the obstruction of the ureters by sabulous, or calcarious matter: the maladies of this species, to which they are liable, are strains of the reins and kidneys, and sometimes ulcerations in the latter; symptomatic stranguary; ischury, or suppression of urine, and diabetes, or its immoderate flux.

Since writing the above, information of the following case has been handed to me. July 1806, a stage-coach horse, which always laid down and rolled in a suspicious way, on coming to stable, was taken ill, and the proprietor sate up with him, through the night. After rolling, stretching out his neck, and laying his

head flat, he died. Being opened, a large stone, apparently not long before passed, was found in his bladder. My informant remarked, that he suspected a stone, and that it was his motive for opening the horse. This appears a marked case of *nephritis*, however rare that disease may be in the horse.

I desire to make a few minutes pause here, to note a curious passage in Bracken, vol. i. p. 254. The doctor says, “three or four times
 “ I have in my practice (when the sphincter
 “ muscle, or neck of the bladder, has been so
 “ swelled, that it would not admit of passing
 “ the instrument) cut into the very body of the
 “ bladder above the *Os Pubis*, and let the
 “ urine flow out that way for a month or six
 “ weeks, till such time as the inflammation,
 “ &c. about the neck of the bladder, was quite
 “ dispersed and gone; after which the people
 “ pissed as well and sound as ever, and some
 “ of them are yet living; though it is ten
 “ years since I performed such operation upon
 “ them.”

Now Bracken challenges the invention of this operation, as “a method never before
 “ practised, nor even mentioned in any an-
 “ cient or modern author.” I have read of the ancient operation of Lithotomy, described by *Celsus*; of the use of the Catheter, by

Romanis and *Marianus*; of the high and low operations; of the improvement of *Frere Jacques*, and the latter improvements upon him, by various eminent men; but of the operation through the abdominal muscles, immediately above the *os pubis* (or high operation) as described by Bracken, I only find it said to be a late discovery, with no notice whatever of the inventor's name. I have somewhere read, that the famous Lord Peterborough underwent the high operation, and nearly about the same period in which Bracken practised it. Professional critics can no doubt set me right, as to the truth of Bracken's pretension. Granting him really the inventor, it is not difficult to conceive that his cotemporaries, and even some writers since, would preserve an affected silence concerning him; for he was generally treated with contempt by the fashionable physicians of the day, as a vulgar provincial doctor, infinitely beneath their notice. I have seen in some medical work, a catalogue of veterinary writers, with the names of Gibson and Bartlet, without any mention of Bracken, to whom the two former were so much obliged; but Bracken was an honest, and good physician, and a useful and solid writer, although he possessed neither the genius, nor the imagination of "our Jock,"

I have formerly laboured under the horrors of the ischury nearly three weeks myself; at the same period a poor man in my neighbourhood (a stony district, where nephritic complaints were frequent) died of a suppression of urine: at the conclusion of the *Zoonomia*, Dr. Darwin adverts to the danger and ill-success of various efforts to discharge the water, in inability to empty the bladder, and recommends the injection of crude mercury into the urethra, which might by its weight open a passage; now granting the facility and safety of the operation described by Bracken, it surely deserves the reconsideration of the faculty: I saw no reason at the time to doubt, that the poor man above-mentioned might have been saved by it.

It is curious to compare the flimsy elegance of the late Dr. Austin's book, where he attempts to prove, that nephritic diseases have not an urinary origin, with the vulgar and homespun, but sound and convincing reasoning of Bracken's *Lithiasis Anglicana*. I mention the latter tract, for the purpose of introducing from it, an anecdote of a gentleman from the North, who was always afflicted with calcareous complaints in his own country; but coming up to London, was cured by the town beer; and after awhile, intending to return

home, he was seized with his old complaint from the use of the country beer, before he had completed any considerable part of his journey ; on which he put back, and ever after resided in London, free from gravel or stone ; and I have known the same thing to happen myself. London Porter, and London Fine Ale, are the most salubrious of all malt liquors ; the latter, when genuine and unadulterated, and as it ever ought to be, the neat produce of Thames or New River water. The white malt of Ware, and Farnham hops, has been esteemed by many wine-drinkers, of rank, as a rich and generous liquor ; it is in perfection at six and nine months old, and is specific in consumptions, particularly those of women. But, alas ! London beers have long lost their character for genuineness ; their diuretic quality however remains in full vigour, as the druggists are able to testify.

Let us return to the stable. Strains in the kidneys proceed from violent exertion and overloading. The symptoms, difficulty of stalling, and frequent attempts ; thick, foul, or bloody urine ; faintness, loss of appetite, and deadness of the eyes ; inability to back. These injuries being neglected, it is said the horse will in time become surfeited from the imperfect secretion of urine, the kidneys being

diseased; and that the affair may end in glanders and consumption. Bleed according to the degree of fever, and the condition of the horse. A rowel in the belly. Diuretic glysters, see p. 75. Gum Arabic in the water, and half an ounce of sweet spirit of nitre in it, once a day, for a few days. Gentle walking exercise, led. The following ball, twice a day; Lucatellus balsam, one ounce; spermaceti, six drachms; sal prunel, half an ounce; mix with syrup of marshmallows, or honey, and aniseed powder. Should that not succeed, make trial of — Balsam of Capivi, or Strasburgh turpentine, one ounce; Venice or Castile Soap, one ounce; nitre, six drachms; myrrh powdered, two drachms; ball as before, and wash it down with a horn or two of marshmallow decoction sweetened, or warm gruel. Decoctions of juniper berries, marshmallows, parsley, and liquorice roots, in which gum is dissolved, and sweetened with honey; dose a pint or two, with a gill of fine old Holland Geneva; in case of much fever the spirit to be omitted. The quantity, freedom, and colour of the urine, will determine the state of body, or the horse's amendment. Sometimes a cure is very tedious and protracted, but it is infinitely safer to attend patiently nature's good time, and the operation of mild medicines, than to attempt any

hasty and forcible measures. The horse being strong may have gentle physic after the cure, otherwise should be sent to grass. Chronic, or neglected cases of this kind, are absolutely incurable in the stable; the same may be said of strains in the loins, which, if very bad, will require at least A TWELVEMONTH'S run, to be thoroughly recovered.

For affection of the kidneys from CATARRH, see that Chapter.

For BLOODY URINE, from falls or bruises, from overstraining at a hard leap, or a hard run heat in racing, or any other cause; bleed, and give two quarts of milk, or whey, warm, with a gill of peppermint-water, and a strong decoction of two ounces juniper berries; Irish slate, two drachms; sweeten with honey, or syrup of quinces. If the drink be desired more efficacious, repeat and continue it once a day, with the addition of one ounce to two of Armenian bole in powder; and two drachms, to half an ounce, Japan earth. OR. The following restraining ball twice a day; Peruvian bark, half an ounce to one ounce. Lucatellus balsam, or balsam of Peru, half an ounce; Irish slate two drachms; elixir vitriol, one drachm; ball with conserve of red roses, and syrup of poppies. OR. A decoction of logwood and

oak bark, sweetened with honey, dose one pint.

In a suppression of urine from inflammation, *paralysis* or numbness, or other defect in the kidneys, whence obstruction, and inability to perform the office of discerning the urine from the blood, the body of the horse will appear distended, although his bladder be empty, and he make no motion to stale; at least very little water will pass: in a few days, the legs will be swelled, and the tumefaction of the body increased to a great degree, with perhaps eruptions and blotches, from the retention of the urinous salts in the blood; this case demands instant relief, and carries with it an apology for vigorous measures, since the most powerful stimulants, have to my knowledge proved for a considerable time ineffectual. A horse remaining in this state, the secretion of urine being repressed two days, may be looked upon as lost.

The reader will observe the cautions above given, “patiently to attend nature’s time, and the operation of mild medicines;” and mark well the critical exigency of the case. He will have a full answer to an uncandid note of Mr. Blaine, respecting former practice in this case, which, it is highly probable, he has not amended.

I refer the veterinary reader to Gibson's practical observations, and the cases he relates.

If the strength of the horse will bear it, open several veins in different parts, drawing to the quantity of from one two quarts of blood. Immediately give a glyster, and follow it up with a ball, the ball to be repeated three times in the day, if needed ; and the glyster at discretion ; should there be a partial and gradual amendment, they may be repeated in a milder form, or substitutes chosen from amongst those forms before prescribed.

The GLYSTER. Succotrine aloes from one to two ounces, in exceeding fine powder ; jalap, two drachms to half an ounce. Nitre well beaten two to four ounces. Juniper and bayberries bruised, one handful each ; Venice turpentine, two ounces ; beat up with the yolks of two eggs. Infuse in one or two quarts marsh-mallow decoction, or thin gruel, adding one pint linseed oil. The BALL. Juniper berries pounded, one ounce ; succotrine aloes, and sal prunel, six drachms each ; ethereal oil of turpentine, from two to four drachms ; camphor one drachm ; ball with liquorice powder, oil of amber, or preferably with chemical oil of juniper, and honey : make it into two or three balls, for one dose. Or : in a desperate case, cantharides from one scruple to half a drachm ;

camphor dissolved in oil of almonds, one drachm to two; nitre and Venice soap each an ounce; mix with syrup of marshmallows. But I must own I have never seen any good effect in the case, from the internal use of cantharides. Warm gum Arabic water, and scalded pollard, if the horse have any appetite. Lead out well clothed, and walk gently half an hour, the weather permitting. When the kidneys are sound, mercurial physic will sometimes succeed. After the cure, strengthen the kidneys with bark and steel, if there remain symptoms of debility. If an external application should be thought necessary, lay the following CATAPLASM, spread on a double coarse flannel, upon the loins of the horse, and bind it on with a warm covering, previously rubbing well into the parts two portions oil of turpentine, and one of oil of amber. Garlic pounded, and horse-radish, *q. s.* Mustard seed, one pint; camphor, two ounces; as much green soap as will make a plaister of due consistence: it may be renewed every two days.

The ISCHURY (for which the strangury, although in common use, is an improper term) often afflicts aged horses, or such as are hard worked, and hardly used. It is an obstruction at the neck of the bladder, preventing the course of the urine, or suffering it to pass only

in drops ; and arises either from an inordinate distention, and consequent loss of elasticity and force, in the *detrusores urinæ*, with a paralysis of the *sphincter* muscle, from the horse being driven on, and forced to retain his water too long, and other causes of debility ; or a collection of matter derived from diseased kidneys, or the determination of catarrh or fever. The symptoms are obvious, distended flanks, straddling, with frequent ineffectual motions to stale ; but the horse will sometimes lie down on his back and roll, as in a colic.

In the CURE of this malady, it is a general rule, to which I know of no exception, that all drastic diuretics (at least in any considerable doses) should be religiously avoided ; since they do but excite a more copious secretion of urine from the kidneys, and of course increase the distention of the bladder, its inflammation, or the numbness and debility of its muscles. In a case of desperate necessity, I should suppose no measure could be so effectual, or so safe, as an evacuation of the urine by the proper surgical operation, which by emptying the bladder, would give opportunity for the recovery of its tone ; otherwise bleeding, tender care, and the milder diuretics, with opiates continued. To establish a cure, two months grass, or straw-yard.

The DIABETES in a horse, is either the fatal termination of some chronic disease, or the sign of a constitution too far gone to be worth the attempt at a recovery ; but if such an attempt be meditated, it must be essayed by the long continued use of restringents, agglutinants and balsamics—Barks, gums, balsams, boles, chalk, logwood, and lime-water. Dry nourishing diet, with beans and rice.

Casting my eye over a Review lately, I saw a very excellent practical observation of a certain physician (surely Dr. S. Walker?) treated with unmerited slight. The doctor remarked, that the dread of a diabetes, during their frequent nervous emissions of urine, was a common hallucination with many hypochondriac patients: I can vouch for the truth of that remark.

THE COLIC, GRIPES, OR FRET.

For the CURE of this troublesome, and sometimes dangerous complaint, eminent men, both under the ancient and new order of things, have invented extraordinary remedies. Leonard Mascall assures us (p. 242) that “the colic
“ in the belly of beasts is soon put away, by
“ beholding a goose or a duck on the water
“ swimming.” Markham prescribes a glyster

of hen's dung, nitre, and strong vinegar ! And the late great state physician, Citizen Marat, who also was in the habits of prescribing for the body natural, and loved a radical cure to his heart, being one day severely griped, (as Brissot tells us) ran all over Paris, in search of a surgeon, who would undertake the cutting his guts open, in order to look for the colic ! Unfortunately that consummate operatrix, Charlotte Corday, had not arrived.

I suspect authors may have run their divisions upon this disease in horses, somewhat too fine ; it may, however, be divided into the common FRET or GRIPES, the FLATULENT, the RED or INFLAMMATORY, and the BILIOUS COLIC ; of the occasional existence of this latter, in an animal so frequently subject to biliary obstruction, no doubt need be entertained.

The primary cause of a common fit of the gripes in a horse, is nine times out of ten an accumulation of indurated excrement in the intestines ; for independently of the solid obstruction so occasioned, the usual proximate causes would seldom have power to work those serious effects we witness ; thus in a horse, the colon of which was not previously infarcted and plugged up, the effect of a slight cold thrown upon the bowels, or the devouring a few new

beans, would probably pass off with a very moderate struggle from nature.

The symptoms scarcely need description; cold dew at the ear-roots and flanks; frequent pointing to the seat of complaint, and a desire to lie down and roll; sudden rising and great agitation; the greatness of the agitation, or rather iactitation, no convulsions existing, seems to form the diagnostic in all colicky complaints.

The CURE requires prompt and vigorous measures, and plenty of assistants to conduct them. Loose stable, or out-house, well littered down, that the horse may have room to roll himself without injury. Clothe with warm dry clothes. Man to attend the head, that it be not beat against the pavement or wall; another or two to rub the belly well at every quiet interval; a more effectual help than generally imagined, to disperse the wind. Bleed, if possible, in the neck veins, not only to ascertain the quantity, but because surely it cannot be irrational to suppose such a substance as blood, improper to be taken into the stomach, under the circumstances. Whilst medical remedies are preparing, walk the horse about briskly in hand, one following with a whip; or keep him to the jog-trot, but drive him not fast, or harass him, on any pretence, which has ruptured the belly of many a horse, and

which at least often inflames and exasperates the symptoms. Back rake with a small hand well oiled, and give the common gruel GLYSTER, with half a pint of oil, and a large handful of salt; immediately pour down by the mouth, half a pint of Holland's geneva, rum or brandy, and a like quantity of sweet oil mixed, or a little diluted with thin gruel, if thought too strong; keep the horse on his legs, and exercise him forthwith. If to be obtained soon, and demanded by the exigence, add to the glyster four to six ounces of Glauber's salts. Or, of tincture of jalap, or of senna, two ounces. Or best aloes in very fine powder, half an ounce. And to the drink, three or four ounces syrup of buckthorn. Or, *Elixir Proprietatis*, or aloes wine. Castor oil may be used instead of olive. A notched onion may be thrust up the fundament; or an onion and a piece of soap the size of an egg, beat up together into a soft bolus, with a pinch or two of pepper; afterwards a glyster of black soap, one ounce to a pint warm water. Should suppressed perspiration thrown on the bowels be among the causes, (see Colds) the warm seeds ginger, castor, and camphor, should make part of both the drinks and glysters. For a large cart-horse, where wind is not the predominant symptom, and no appearance of cold, the fol-

lowing drink: Gin, brandy, or rum, and sweet oil, one pint each, mix with the solution of six ounces Glauber's salts, repeat in two or three hours, warm gruel in the interim. The repetition of these must be left to the judgment of the practitioner; but plenty of warm gruel and warm water, should ever, in these cases, be at immediate call, as sometimes the throwing in two or three gallons of these at both ends, and at proper intervals, will do the needful with little or no assistance from the apothecary.

Bracken cautions against the common practice of farriers, who give large quantities of Venice treacle, mithridate or diascordium, both by way of drink and clyster, upon loaded intestines; thereby locking up the cause of the disease still more securely: he compares it to firing a pistol into the horse's fundament, by way of clearing all obstructions at once.

Mashes. A week after the cure, a gentle purge or two.

The FLATULENT, or WIND COLIC, is known by great fullness and tension of the belly, from rarefaction of the air contained in the intestines; *borborigmi*, or rumbling of the guts, discharges of wind, and frequently strangury, occasioned by the fullness and pressure of the streight gut upon the neck of the bladder; this last is denoted by the horse rolling

upon his back, and by frequent ineffectual attempts to stale. Crib-biters, from constantly sucking in large quantities of air, are particularly subject to windy gripes. We are not however to suppose, that the flatulence in the stomachs and intestines of animals, is composed of external air inhaled, a common error which I have noted in the General Treatise on Cattle.

The intention of CURE plainly consists in the speedy exhibition of volatile and carminative, of diuretic, and laxative medicines, which ought to be given both in the form of glyster, and by the mouth. Ball. Strasburg, or Venice turpentine, juniper berries, and carraway seeds pounded, each half an ounce; fine aloes well powdered, two drachms; sal. prunel, one ounce; chemical oil of juniper, one drachm, salt of tartar, two drachms; ball with honey and-hard soap. Wash down with a pint or two warm gruel. Or, The following drink: Castile soap and nitre, one ounce each; juniper berries, and carraway seeds, half an ounce each; ginger powdered, two drachms; Venice turpentine, dissolved with the yolk of an egg, six drachms; tincture of senna, an ounce or two. Mix with warm ale and treacle. Repeat. GLYSTER as before with the addition of carminatives: chamomile flowers, two handfuls; anise, coriander, and fennel seeds, one ounce each; long pepper half an ounce. The following

herbs are prescribed, but as in general there may be a difficulty in obtaining them, I have substituted water-gruel, which, in truth, I have always found an excellent substitute: Mallows, pellitory, elder-flowers, the herb mercury, mullein, bear's-breech, &c.

St. Bel remarks on the difficulty of hitting the critical moment, proper for the exhibition of opium in long continued pains; and of regulating the quantum of the dose. He pretends, that should the opiate be too weak, the pains will be enrag'd; if too powerful, that it will hasten death. Bracken determines the proper time for the use of opiates to be, after the cause of the disease shall have been removed by lenient purgatives and clysters; when the former are requisite to complete the cure, by appeasing pain, allaying the tumult of the bowels, and obviating superpurgation or flux. Proper forms will be found after the next species of colic, since they may be necessary in both.

The INFLAMMATORY OR RED COLIC, is supposed to originate in some internal injury; it is that species with which race-horses are sometimes afflicted, as St. Bel asserts, from the immoderate use of purgatives, which act as caustics upon the nervous fibres of the stomach and intestines, and even irritate the extremities of the small blood vessels to that degree, as to

cause them to contract, and thereby impede the course of the blood. How far that writer is correct in his ætiology of this disease, I am unable to ascertain, but I have often enough seen the colics of race-horses, a double example of which I recollect in one day, and both horses were cured by an ignorant country fellow; that is to say, the man cut their mouths, poured some stuff, which smelt very hot and strong, down their throats, and flurried them up and down dreadfully, beating them with cudgels. One of them had a very narrow escape, but thanks to the doctor, or to the doctress Nature, he lingered through it. They had both run that day, and their disease seemed to me to proceed from inanition, and having been kept too long without sustenance, desiccation of the juices of the stomach and intestines, and inflammation from hard-straining.

The common SYMPTOMS in this species are violent; the horse discovers pain if his flanks or belly are pressed. The conjunctive membrane of the eye appears much inflamed, the anus the same, and of a bright red colour; the high degree of inflammation is chiefly occasioned by the acrimony of the bile. There is an appearance of looseness in the beginning, a little dung is ejected with a hot scalding water; sometimes a burning fever; and the progress of inflammation so rapid, that a mor-

tification in the abdomen takes place in a few hours.

Bleed as largely as you can with safety. In the urgency of the case, and before medicines can be obtained, gruel and sweet oil, or even warm water and oil mixed, may be given at either end. Castor oil, one quarter to half a pint; nitre, two ounces; camphor, one drachm; make the drink with gruel, or decoction of febrifuge herbs and honey. Repeat, or substitute within an hour or two: Turkey rhubarb in powder, half an ounce; diapente, one ounce; salt of tartar, two drachms; ginger grated, and oil of juniper, one drachm each; ball with oil of amber. A GLYSTER of the herbs chamomile, mallows, &c. two ounces lenitive electuary. The following PURGING DRINK, if necessary: Senna, two ounces; liquorice root, one ounce; salt of tartar, two drachms; carraway and juniper berries bruised, one ounce each; boil in a quart of water to a pint, strain and add two ounces lenitive electuary, with good old white wine half a pint. St. Bel recommends *Pulvis Jacobus* every six hours; an antimonial preparation which I have been unable to find. Should a tendency to mortification appear, it must be resisted by bark and wine, both in drinks and glysters. The ANODYNE DRINK AND BALL. The Drink: White wine, or

fine beer, one quart, dissolve in it the size of an egg, common cordial ball, and one ounce Venice treacle, add or omit according to circumstances, one hundred drops laudanum, and the same number tincture of castor. Stir well, and give it warm. Or, The ball. Diapente, one ounce; diascordium, half an ounce; myrrh, two drachms; ball with liquorice powder, and two drachms oil of amber.

I know of no distinct or peculiar method of treating the HEPATIC OR BILIOUS COLIC; it is generally inflammatory, and requires similar treatment with the above, regard being had to the medicines prescribed in the Yellows. The colic produced by hair-balls, bezoar-stones, and concretions in general, is said to be mortal.

In the colics of horses and cattle generally, without regard to their species, and in random practice, laudanum or tincture of opium, have had wonderful success. A table spoonful of laudanum is the common dose, sometimes repeated, in warm gruel or beer. A veterinary surgeon of some note, lately reminded me of the old preference given to brandy in this case, before any other spirit, which is no doubt grounded on experience. Fine French brandy is a noble medicine, as a tonic evacuant. As an extemporaneous and domestic or stable

form, in almost any colic which may occur, I know of nothing more safe and efficacious, than laudanum as above, a gill of fine French brandy, and half a pint of oil olive, in three pints warm, fine gruel, or ale. To be repeated, if needful, or nitre to be added, as before directed, if much fever. It is a great object to give the medicine in time, and before the violence of the pains, have induced a high degree of fever; and such articles as oil and laudanum, should always be at hand, where horses are kept. It must not be concealed however, that many horses have been lost in colics, when opium and tonics have been freely exhibited, on which I shall speak farther in the additions.

The following extraordinary note may be found in Mr. Blaine's second volume, p. 487 :
“ In a late publication by Mr. J. Lawrence,
“ from a want of information on veterinary
“ medicine, which, though he candidly owns,
“ yet by attempting to draw information from
“ other sources, he propagates some very dan-
“ gerous errors: recommending in this com-
“ plaint drugs that are most highly improper,
“ as *camphor, ginger, oil of juniper, oil of am-*
“ *ber, carraway and juniper berries, with white*
“ *wine.* The pleasantry and humanity dis-
“ played in this work would make me forego

“ any criticism ; but this is so very dangerous
“ an error, that it would be improper to pass it
“ over, in justice to the science, and to the
“ unfortunate animals that may fall victims to
“ it.” I leave it to others nicely to scrutinize
the motives of the above, and similar observations of Mr. Blaine, with expressing my perfect satisfaction that his complacence did not in this case prevail over his sense of justice and public spirit. I will only add, that I wish it may be in Mr. Blaine’s power to take my replies in as good part as I do his remarks, and to bring his mind to the state in which I have been labouring for many years to reduce mine ; to enable it to love truth with equal ardour, whether it concern myself or others. If it turn out that I am wrong in this case, I shall always hold myself under an obligation to Mr. Blaine for having informed me of my error ; if otherwise, I am still obliged for the opportunity of vindication.

But, in the first place, in what page of my book, or where did Mr. Blaine find me “ owning a want of information on veterinary medicine ?” With respect to the “ comfortable things and cordial drenches” commonly given in gripes, and the danger of increasing inflammatory symptoms, Mr. Blaine might have convinced himself, as my readers, in ge-

neral, are no doubt convinced by my observations and cautions, that I was fully *informed* and prepared on that head. In truth, it was from the most mature consideration, that I ordered paregoric and anodyne articles, which, from experience, I conceive, must ever be indicated, in a greater or less degree, during the *tormina* of colic, however considerable the inflammation. Mr. Blaine's objection to camphor, I apprehend, will do him little credit, that drug being perhaps our greatest dependance in the case, as febrifuge, anti-inflammatory, an excellent antiseptic, and preventive of the strangury, which sometimes supervenes. He may observe, that in my first prescription, no article to which he objects is to be found, camphor excepted; surely then, as antiphlogistic as himself could wish. *Afterwards*, and on the presumption of an exacerbation of the *tormina* or gripes, which I have often observed, oil of juniper and articles of a similar intent, are prescribed, but in such moderate quantities, and so guarded, as to render it impossible they should have any of those dangerous effects which Mr. Blaine pretends to dread, or, in fact, any but such as are legitimate and salutary. The wine which Mr. Blaine quotes, rather in a marked way, is only half a pint in a purging drink, *if held necessary*, that is, after a

considerable time for reflection on the state of the case. The larger quantity of wine, afterwards ordered, is on a suspicion of the approach of gangrene. The experienced practitioner, particularly in the colics of horses, will now decide on the validity of Mr. Blaine's objections; and by what follows, to which of us, the charge of dangerous practice, will most probably attach.

I have already remarked, "that I suspect
" authors may have run their divisions upon
" this disease in horses somewhat too fine." That observation occurred from what I had seen; and I am still farther confirmed by what Mr. Blaine has written, that is to say, collected from mere authority, on the different species of colic. This disease in horses is generally of a compound nature, and the species so decidedly inflammatory as he pretends, rarely exists in this country. With the *nosological arrangement* of the profound and experienced Cullen before him, it is pity but that Mr. Blaine had also paid some attention to the excellent advice given in the Preface—not to embarrass the history of a disease by an unnecessary detail of symptoms that are "adventitious and accidental," but to confine himself to such as are "common and inseparable." To teach gravely, that in red colic "the horse expresses great

“ uneasiness, lays down and gets up again,
“ strikes his belly, *but seldom rolls*, but that in
“ spasmodic colic he frequently rolls ;” and “ be
“ careful to distinguish it (red colic) from
“ gripes,” will not serve to impress a gravity
appropriate to the occasion, upon the counte-
nance of the practical reader. Small indeed
must be the inflammation which the attendant
cannot palpably detect, and strange must be
that colic which is distinct from gripes ! I
move, that henceforth such equivocal disease
do obtain the name of the Blainean colic.

Before we dismiss this subject, it must not be
forgotten, that the flatulent or spasmodic colic
is, by far, the most frequent with horses, and,
in this species it is, that farriers do so much
mischief with their inflammatory specifics,
sometimes curing their patient as effectually
and instantaneously, as if, in the language of
Bracken, they had “ fired a pistol into his fun-
“ dament.” Mr. Blaine seems to follow these
hardy prescribers *passibus equis*. With half an
ounce of æther, and half an ounce of tincture
of opium, he has ordered three ounces of the
spirit of turpentine, an article, from a liberal
dose of which, many a poor horse has happily
received the *coup de grace*. To use the actual
cautery in colic, would be needlessly to add to
the tortures of a wretched animal, whose feel-

ings ought to be respected, when it becomes but too plain we can afford him no farther assistance. From late medical writers who have visited Arabia, Mr. Blaine may learn, that the cautery is generally useless in this case, and many others, in which, nevertheless, by the custom of that country, it is as generally applied, leaving very unsightly eschars in various parts of the patient's body. The actual cautery, sacrifications of the occiput, and blistering the lower extremities with cloths dipped in boiling water, also are very old remedies in apoplexy.

BURSTENNESS OR RUPTURE.

Ruptures proceed from strains in labour, high and difficult leaps, particularly with heavy weights, kicks; from being staked, or gored by oxen, and various other accidents. Gibson says, he has known instances of the belly being ruptured from too deep an incision for the purpose of a rowel.

In a rupture, a portion of the *Omentum* or caul, or of the guts themselves, is forced through the muscles of the belly at the navel, or through the rings into the *scrotum* or cod. The tumour, when not too large, will return on

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being pressed, as if it were merely flatulent, and the rupture or chasm may be felt. It is easy to conceive, that such a defect is incurable, excepting possibly in a very slight case, and a very young subject; the intention must be to palliate, to render the animal as useful as possible, and as comfortable to itself. In a recent case, bleed, and give emollient and oily glysters, boiled barley, malt mashes, nitrated water. Foment twice a day with camphorated spirits and vinegar warm, and poultice with oatmeal, oil, and vinegar. Use the restringent embrocation (see Index) occasionally, ever afterwards; but nothing would be so effectual as a suspensory bandage, could that be contrived. Should there be an external wound, and the skin be divided, in course, the protruded intestine must be carefully returned, and the wound healed with spirituous and balsamic application. I have some obscure recollection of a complete cure in that case.

ON FALLING OF THE FUNDAMENT.

This may be occasioned by long continued looseness or scouring, and horses of a lax and washy constitution are most subject to it. It is

produced by long journies, or hard labour with insufficient nourishment. The defect is frequent with over-driven pigs, which I have often attempted to cure, with very ill success. Solleysel says, it was sometimes brought on horses, in his time, by docking.

In the CURE no time ought to be lost. If the gut descend to any great length, and be much swelled and inflamed, wash with warm milk and *aqua vegeto* equal parts, and suspend it; repeat the washing, and when the inflammation is abated, anoint with oil of roses, chamomile, or dill, and a small quantity of Friar's balsam, and gently with a warm linen cloth, return the gut to its proper place. Bathe the fundament frequently with the following mixture: Red Port wine and camphorated spirits, a quarter of a pint each; Goulard's extract, forty-drops. A composition of oak-bark, flour, honey, and turpentine, applied frequently to the fundament. Mash of malt, or corn and bran, and the animal kept very quiet, with the most gentle usage. Should the gut not remain, or fall down in exercise, and shrink up again in the stable, it is the sign of a fistula, and the only remedy is excision; which must be performed with a red-hot knife, a ligature being previously made. The wound healed, a

pretty long run at grass or straw-yard; previously to which, it will not be safe to work the horse.

GONORRHŒA, MATTERING, AND FALL
OF THE PENIS.

A stallion weakened by too much covering, will sometimes have a thin white discharge. Bathe the testicles with the restraining embrocation at night, and wash them in the morning with cold water, rubbing them dry with a cloth. Or. Ride him up to the belly in water every morning the first thing.

A STRENGTHENING BALL: Balsam of Capivi, olibanum, and mastic powdered, each two drachms, bole armoniac, half an ounce; ball with honey and liquorice powder, and give it night and morning; afterwards once a day, as long as wanted. Should there be a foul ichorous discharge from chafing or ulceration, externally or internally, first wash well with soap and water warm, which it may be also useful to inject. Apply the following, milk-warm, to any excoriation or sore, with a soft rag or sponge: lime-water, one quart; sugar of lead, half an ounce. Mix. In case of fungous flesh,

half an ounce of vitriol may be added. Or: Liniment of turpentine, and honey of roses. For an injection, take balsam of capivi, half an ounce, with the yolk of an egg, add lime water, half a pint; honey of roses, two ounces. The yard being much inflamed and swelled, foment as often as necessary, with leaves of mallows and marshmallows, chamomile flowers, melilot, and fumitory, each three handfuls; rosemary, wild thyme, southern-wood, and elder-flowers, each two handfuls; juniper and laurel-berries bruised, each four ounces. Boil in eight quarts of water to six. Strain and foment with two flannels, by turns, as warm as convenient, morning and evening. A pint of British brandy may be added. While using, keep it warm over a chafing-dish. The remaining liquor may be put again on the herbs, for next day's occasion.

A seminal gleet in horses, from plethora and want of exercise, is remedied by venesection, mild purgatives, alterants, and regular attention to cleanliness; but partially in some constitutions, where the seminal secretion is very copious: this, joined to the other inconvenience of stallions being more liable to grease and foulness than geldings, has often made me wonder that so many of the former should have been formerly kept in the London brewery. That they are

more capable of labour, I know by experience to be unfounded, at least that geldings are fully adequate to every purpose required. It is a great folly in the breeders to keep so many ill-shaped horses stoned. FAST WALKERS are now the great object of request for the London drays, and I think the best cattle which I have noticed of late are geldings.

In a falling of the yard from debility, and relaxation of the muscles, anoint with wine, one pint, and Goulard as before (see Fundament) or oil of roses and brandy; or foment if much tension, suspending the penis, with a hole left for the urine to pass. Inject the first mixture. It has been advised to make superficial punctures about the yard with a sharp needle, and then to wash with distilled vinegar, but I know nothing of the success of such practice. The member being returned, bolster it up securely, and charge with bole, whites of eggs, flour, dragon's blood, turpentine, and distilled vinegar. Discharge a pail or two of cold water, from the pump or well, upon the horse's loins every morning early, rubbing dry; bathe the loins once or twice a day with the restraining embrocation, to which may be added oil of origanum. Cordial balls with a scruple or two of opium.

In the cure of gonorrhæa in horses, it has

been long the practice in Spain to use the actual cautery, and it has been lately recommended in the French school: I conceive there are various objections to such practice.

VENOMOUS BITES.

Bracken makes merry with Sir William Hope's mice; however I have often seen the *shrew*, or *shrove-mice* of the old farriers, in different counties; they have a snout like a hog, their bite is venomous, cats will kill, but not eat them. If a horse in the field were seized with a numbness in his limbs, which was styled to be TAKEN, or in the language of Mons. *Horace*, a famous French farrier, SURPRIS, he was adjudged by the old sages, either planet-struck or shrew-run; and the cure (which never failed) was as rational as the supposed cause of the disease; the patient was dragged through a bramble which grew at both ends!

In punctures from the stings of hornets or wasps, or wounds by the tusks of a boar, which last are apt to swell as if venom were really instilled; wash clean with warm soap suds, and anoint well several times a day with warm salad oil. Emollient poultices, and fomenta-

tions with rue, wormwood, bay leaves, rag-weed, and wood-ashes. Heal with *Ægyptiacum* and Brandy mixed. Saline physic, or nitrated water, if feverish symptoms supervene; or the internals hereafter recommended.

The bite of a viper or est, is of far worse consequence; not only the wounded part, but sometimes the whole body will be considerably swelled. Make a tight bandage above the wound, if upon a limb: enlarge the wound with a small sharp pointed cautery, avoiding the tendons, and keep it open as long as the venomous symptoms remain, with sponge smeared with precipitate ointment, or orris root prepared with Spanish flies. Rub in warm oil mixed with viper's fat, both to the wound and the swelled parts. Wash with strong vinegar, one pint; mustard-seed, two ounces; mix. Stop close a few hours, and strain. Dress with warm *Ægyptiacum*, once or twice a day. In some cases bleeding is required. The following drink every night for a week. Venice treacle one ounce; salt of hartshorn, one drachm; cinnabar of antimony, half an ounce; sweet oil, three ounces in warm ale. Drinks of wormwood, rue, and scordium. Scraped tin.

On that most dreadful of all maladies, CA-

NINE MADNESS, no new discoveries have been made, excepting that the *hydrophobia*, or dread of water, is not a peculiar consequence, or symptom of the rabid poison, although its general attendant; but merely sympathetic affection from a pained tendon, analogous to the *tetanus*, or locked jaw. Hydrophobia has been known to attend hysteric cases, and painful wounds in the tendons, and to precede the locked jaw.

In the bite of a mad-dog, for in that animal the contagious rabid poison seems to originate, or of any animal which being bitten acquires the power of propagating the poison, the only remedies intitled to any rational dependance are instant exsection, or cutting away the bitten part, ustion or burning, and mercurials. The Ormskirk Medicine, Dr. Mead's remedy, bathing in salt water, and many other pretended specifics, have all failed; and as I should conceive, never had any real title to do otherwise. That Dr. Mead should recommend liver-wort and pepper, as articles of sufficient efficacy to be a specific cure in a disease of such dreadful and potent malignancy, would be truly astonishing did we not know that the greatest men are sometimes guilty of the meanest absurdities. Besides burning the wound,

where practicable, a circle ought to be drawn round it with a cautery. Rub the part with strong mercurial ointment and turpentine as often as possible, without raising a salivation. Turbith mineral has been supposed to succeed in the cure of dogs, of course it ought to be tried with horses, and also with human patients. Bartlet advises turbith and camphor equal quantities (see Farcy.) Before, or after the Turbith course, the horse should be frequently plunged in cold water. This is recommended by the old doctors, to be done the day before the full, or new moon; what her nocturnal majesty can possibly have to do in the business, I have no conception; but it is easy enough to prove, that she and her starry attendants are often implicated by fond and silly mortals, where they have no manner of concern.

The diagnostics of canine madness are, hunger and thirst, without power to eat or drink; trembling, eyes fierce and flaming, hanging of the ears and tail which is bent inwards; lolling of the tongue, foaming, barking of the dog at his own shadow, panting, running a straight and heedless course against any thing in his way, biting with violence; other dogs fly him by instinct,

Some people have, and do at this day, deny

the existence of canine madness, as also that the plague is contagious; this is only the proof of another species of madness.

SWALLOWING OF LEACHES, OR HEN'S
DUNG.

This accident frequently happens to country cart-horses, passing off with a slight sickness, and without notice. Whilst the horses are absent, the poultry will always watch the opportunity of examining the mangers, where they leave both dung and feathers, which ought ever to be carefully swept away, previous to feeding the horses. Horses drinking at ponds will often suck in a variety of filth and vermin. The signs of having swallowed leaches, or other vermin, are, hanging the head to the ground, and a discharge of impure saliva, sometimes mixed with blood. Give a pint of sweet oil warmed, with a glass of brandy, and a drachm of ground ginger. Scalded bran and gruel. The oil may be repeated if needful. Mild dose of aloes and rhubarb, with one ounce diapente, washed down with warm ale.

When any considerable quantity of fowls

dung and feathers have been swallowed, the horse will lose his appetite, swell in his body, and void foetid, slimy matter from his fundament. The same medicines and treatment, with the addition of honey to the oil. Walking exercise, the horse clothed. Sow-thistle dried and powdered, smallage-seed bruised, marjoram, and the ashes of the root, leaves, and fruit of briony, were the specifics of former times.

CHAP. VIII.

ON THE DISEASES OF THE EYES AND
MOUTH.

I AM by no means deeply skilled in the physiology of vision, and shall refer such of my readers as are curious upon that subject, or desirous of acquiring satisfactory information on the anatomy of the eye, to Dr. Bracken's works, where their laudable curiosity may be amply satisfied. The Doctor (who seems to have been thoroughly qualified for the task) passes some very severe strictures upon both the knowledge and veracity of the famous Chevalier Taylor; and it is highly probable several physicians of that time, not being thoroughly experienced in the anatomy of the eye, were deceived by the plausibility and manual address of that confident empyric.

The diseases of the eyes in horses, natural and acquired, may, I think, be conveniently classed as follows: OPTHALMY OR INFLAMMATION, from whatever cause; HUMOUR-BLINDNESS, DIMINUTION OF SIGHT FROM

DEBILITY OF THE ORGANS, CATARACT, GUTTA SERENA, EXTERNAL ACCIDENTS.

Previously to entering upon the method of cure, I have a few remarks to make upon an article of prime consideration, as a remedy in this case, which has been introduced since the days of Gibson (a solitary instance of addition, I believe) I mean Goulard's Extract of Saturn, a preparation now more commonly used in veterinary practice, than the sugar, or salt of lead. I have reason to know, from frequent experience, that this most potent and efficacious repellent and bracer, is made much too free with, both to the eyes and tendons of horses, whence are induced violent irritation, inflammation, and a general effect totally contrary to that intended. Mr. Taplin, who is in most cases a cautious prescriber, has yet not only erred, according to my observation, in asserting that the specific in question is more commonly too much diluted, but in the want of sufficiently diluting it in his own prescriptions. He advises (p. 89, Stable Directory) no less a quantity than two ounces Goulard's Extract, with the same quantity of spirits, and four ounces opodeldoc, without the least dilution, to be rubbed twice a day into a horse's leg; an application, I should conceive, not merely probable to disappoint and interfere with

the intention, but to be attended, if persisted in, with all those dangerous consequences usually resulting from superastriction, and the known poisonous quality of lead.

His collyriums also, I think much too strong and sharp; and such as I am convinced would injure any of those horses eyes with which I have been acquainted, and they have not been few. Gibson makes a moderate use of lead in his prescriptions, justly observing, that the eye is very delicate, and in a recent hurt scarcely able to endure the common eye-waters. Dr. Darwin speaks against the too early use of stimulating eye-waters in opthelmy, and recommends afterwards the solution of vitriol, in preference to that of lead. Bold measures, it is pretended, succeed well with the eyes of horses, but such pretensions must be received with caution; the eye is a very delicate organ, to what animal soever it may belong.

I have been in the constant habit of using Goulard's Extract, more than twenty years, not only upon horses and other animals, but upon my own person. From the unfortunate custom of writing by candle-light, and the unpardonable omission of any kind of guard for eyes, I had experienced a gradual diminution of sight about four years. I had always least sight in my left eye, and about the year 1794,

after writing late the preceding night, I walked to see the skaters upon the ice in St. James's Park, where, on a sudden, I perceived a disagreeable sensation communicated to the optic nerves, from the glare of light occasioned by the reflection of the sun upon the ice and snow. On my return home, taking up a book, I was extremely shocked to find I had lost all distinct vision with my weakest eye, which I have not yet regained, nor ever shall. I mention this matter merely to inform those who may be in the same unlucky predicament, of an eye-water which is in constant use with me as a strengthener, and which is always ready at my elbow. Saturnine embrocation (Index) seven drops; soft water, one ounce. Apply it to the corner of the eye, and between the lids with the finger, wiping it afterwards from the surrounding skin, which it is otherwise apt to draw into wrinkles, if constantly used. If by accident I make it stronger, it never fails to irritate and inflame, and lays me under the necessity of discontinuing it awhile, and of using simple water as a cooler. In case of humour or inflammation, add a small tea-spoonful of brandy or old Madeira, or few drops of camphorated spirit.

OPHTHALMY, OR INFLAMMATION OF THE EYE, is always sufficiently visible. The Eyelid is closed, swollen, and weeps; the ball is

inflamed, and the vessels filled with stagnant blood appear very plain upon the coat. It is first necessary to investigate the cause, since it may be merely the intrusion of some small extraneous body, such as a hay-seed; which being suspected, the eye ought instantly to be searched with a soft rag, or piece of sponge dipped in warm skim-milk and water, to which may be added a tea-spoonful of aqua-vegeto. I have now before me a memorandum of a colt, one eye of which appeared as above described; dreading to give the animal pain, I would not suffer the eye to be opened and searched, although the cause of the complaint was suspected. It continued excessively bad several weeks, the colt losing his appetite and falling away in consequence, until the inflammation being abated, and the eye opened, a scar upon the external coat, left by the offending particle, perhaps an oat-hull, was visible, and was not obliterated under several months.

A case of slight, or superficial opthulmy, will generally give way in a few days to topical applications, of the emollient and repellent kind. It is the general practice to have recourse to repellents in the first instance; all I have a right to say is, I have sometimes seen the ill success of it, by an increase of the inflammatory symptoms, to allay which it has become necessary

to make instant use of emollients. I have successfully treated inflamed eyes in horses, with warm skim-milk and water, repeated often, and bread and milk poultices, until the heat and tension had abated; afterwards, with a mild solution of Goulard. I have since observed, there is good authority for the preference of warm relaxent applications in the case; that of Benedict Duddell, the famous oculist, who lived in the reign of George I. confirmed by Ware and Noble, whose method is, to immerse the eye every ten minutes in warm water, or warm water mixed with spirit.

The most usual practice however is, the immediate use of cold spring water, or vinegar and water, and repellents. TAKE one pint of the strained decoction of plantain, rosemary, and red rose-buds: or instead thereof, a pint of clear water, add one drachm sugar of lead, and one drachm and half of white vitriol. OR, The following aqua-vegcto-mineralis: Clear water, one pint; Goulard's extract, one hundred drops; best brandy, a small glass. In this proportion, I have generally used the extract to the eyes of horses. Bathe externally, and apply internally with rag or sponge, several times a day. OR, Honey of roses, spring water, and white of an egg, mixed; and applied with a feather. Some horses are subject

all their lives to weak and weeping eyes, upon every slight cold, from neglect while colts, and lying about in wet and boggy pastures; the only remedy is the occasional use of the vegetable-mineral water. Colts, whilst breeding their teeth, and horses with irregular teeth, are liable to similar inconvenience; the same external method, with salts, and moderate bleeding, and extirpation, or filing down the preternatural teeth.

HUMOUR-BLINDNESS, or INVETERATE OPTHALMY. The whole eye is inflamed both internally and externally, and the admission of light occasions intolerable pain; the proximate cause, I apprehend, to be either obstruction in the capillaries, the blood being too dense for circulation, or a dilatation and weakness of the vessels themselves. This disease is curable with two provisos; being taken in time, and the eye being naturally good; otherwise the attempt at cure is fruitless. For the description of a good eye, I refer the reader to the first volume; if a professional man, to Gibson. For the best method of cure with which I am acquainted, I shall present the Reader with a remarkable case from my memoranda. In 1781 my favourite brown mare had a weeping in one of her eyes, with swelling of the lids; it passed off, after a while, unattended to; a short time

after, the other eye was affected in the same manner. Eye-water was used, and bleeding, and the mare being wanted for a particular occasion, was physiced. The disease remitted and exacerbated alternately, for a month or two, until at length it became very serious; one eye was exceedingly swollen, and opened with great difficulty, discharging a scalding serum, which almost brought off the hair; the coats of the other were thickened, and looked very dull.

Bye-and-bye, the ball of the one was inflamed in the highest possible degree, and the other, although not so much inflamed, seemed to admit little or no light. There appeared a white speck upon the pupil, and several ignorant fellows who saw the mare were exceedingly desirous of having I know not what escharotic powders blown into the eye, with a view of scouring off what they supposed to be films upon the external coat, not being aware that the disease was purely internal; and it is shocking to reflect upon the useless tortures the poor animal would have endured in such hands. Repellents either increased the inflammation or had no effect at all. Nitre was given. A dose of physic checked the inflammation, but total blindness shortly followed. By the advice of my surgeon, I applied to Snape, the King's

farrier, who pronounced the mare incurable ; I then sent her to Layton, a very eminent farrier at Walham Green, with my particular request that he would undertake the case ; which he declined as hopeless. Thus left to my own efforts, and my affections deeply interested, I was determined no exertions of either thought or care should be wanted ; and luckily I was seconded by a skilful groom, a son of old Mendham, well known as an humble stable-attendant at Newmarket. It must be premised, that the mare had had a slight fit of the staggers about a year before, which had been neglected, but her eyes were of most perfect conformation, and in their natural state as clear and diaphanous as a polished mirror. After turning over all my veterinary Oracles, I formed my plan, and having previously obtained the approbation of a regular medical friend, I began my operations. I judged that the humours were condensed, and that topical applications were indicated, to render them fluid and fit for absorption, and circulation ; and that a number of drains or issues were immediately necessary, for the purposes of evacuation and revulsion. I supposed, right or wrong, that peculiar benefit would be derived from the proximity of the issues to the parts affected, on which particular, I should at this day be thankful for

information. A soft leather half-hood, with holes for the ears and eyes, was made, intended to cover and secure poultices. Five rowels were cut; one in each cheek under the ear, under the throat, in the chest and the belly. The eyes were poulticed with hot bran and lard, aqua-vegeto occasionally added, a number of times during the day, and very early in the morning; poultices continually remaining upon the head: this course was sedulously observed during a month or six weeks, all which time the rowels, or most of them, were running. An opening diet, and a little salts with walking exercise. After a week the inflammation gradually subsided, but there were no signs of returning sight, till the end of a month or five weeks; when we were indulged with hope one day, and driven to despair the next; in short, the jokers were busy, but I was determined to persevere. We were soon after agreeably surprised with considerable amendment in one eye, and in a week or two more, the mare could endure the light with both, and saw very clearly; there still however remained a blue cloudiness, which was not dispersed until some months afterwards. The poultices were discontinued, but the eyes were strictly guarded from the light by the hood before-mentioned, the eye-holes being filled with soft leather; nor did I

expose the eyes to the light for nearly two months after the return of sight, riding the mare blinded. After the poultices, aqua-vegeto was used twice a day. Salts, and a short course of cinnabar in cordial ball. I highly enjoyed the first little journey I rode without the blinds, the animal stopping a great number of times upon the road, to examine different objects, with as much curiosity as if she had entered upon a new world. Her eyes remained perfect until her death, which happened six years afterwards from an apoplectic fit, as was supposed, she being seen well in the field at night, and found dead in the morning. I tried the above method with two horses afterwards, but by no means with corresponding success; which indeed I did not expect, their eyes being naturally small, and of defective form.

The conclusions to be drawn from this case are, that the grand dependence for cure is upon the timely insertion of a sufficient number of rowels, and upon keeping the eyes strictly from exposure to the light; that repellents are not always successful, but I presume more particularly indicated in weakness and dilatation of the vessels, and that purgatives may be injurious.

LINIMENTS FOR THE EYES. Mild and cooling: ointment of tutty, one ounce; honey

of roses, two drachms; white vitriol, one scruple. Detergent: myrrh finely powdered, half a drachm; camphor, five grains; white vitriol, ten grains; honey, two drachms; rub them together with spring water. To be used with a feather or pencil in foulness from much discharge.

For a film, web, or speck left upon the outermost coat of the eye, after the inflammation shall have subsided, there seems hitherto to have been no remedy, but corrosive powders or waters; although Dr. Darwin seems to hint at the practicability of an instrumental operation. Solleysel indeed recommends stroaking a white film with the thumb covered with wheat flour, the eyes being previously washed; which he says will extirpate it much sooner than the use of powders, the best of which for the purpose, in his opinion, is sal ammoniac. Bracken recommends Dr. Mead's ointment, which indeed seems ever to have been most in repute, whether from the great name of the author, or from experience, I know not; at any rate it does not stand in the predicament of the Doctor's chip in porridge for hydrophobia, for of the ointment no one can doubt the efficacy, from its incisive power, and I should dread its action upon the corners of the eye, and the eye-lids, where it might raise a new inflammation.

TAKE glass, reduced to a fine powder, which sift through fine lawn, and mix with honey. I would advise a very small quantity to be tried at first, which may be increased, if not found to produce irritation and painful symptoms. Previously to the use of the ointment, perhaps the eye should always be washed with skim-milk and aqua-vegeto. Gibson advises white vitriol, one drachm, white sugar-candy half an ounce, ground very fine, to be blown into the eye with a tobacco-pipe, once a-day; or put into the corner of the eye, with the finger and thumb. Of these applications I have hitherto had no experience, but I will once more give a caution, that before the use be hazarded, it be well ascertained, that the defect intended to be removed be really situate upon the outer coat of the eye, since such remedies can have no possible effect upon the internal parts, and may inflame, irritate, and torture to no manner of purpose.

DIMINUTION OF SIGHT FROM DEBILITY OF THE ORGANS. It is doubtless owing to their various hard laborious services, that horses are more subject to diseases of those most tender and sensible organs the eyes, than any other animals; thence perhaps also the source of their hereditary defects. Hard labour, particularly heavy draught, and repeated

violent exertions at dead pulls, will produce blindness; also poor and unsubstantial keep. The signs are, a gradual loss of convexity, or plumpness in the eyes, with dullness, and imperfect sight at intervals. If the eyes are naturally good, a cure may be wrought by mending the keep of the horse, and the constant use, twice a day, of the strengthening saturnine collyrium prescribed in humour-blindness. Bathe the temples occasionally with distilled vinegar and brandy mixed.

CATARACT OR GLAUCOMA, for they appear to be one and the same disease, is a suffusion, or cloud upon the *pupilla*, commonly called the sight of the eye, at first partially, in the end totally, obstructing the ingress of the rays of light; the proximate cause is said to be a preternatural affection of the crystalline, or second humour of the eye, which is changed, becomes opaque, and impervious to the rays of light; the remote cause, in horses particularly, is almost always natural bad conformation of the organ, by which the humours are predisposed to other causes of the disease; and I scarcely recollect seeing either cataract, or gutta serena, in a well-formed eye. That which is termed in the language of the stable, LUNATIC, or MOON-BLINDNESS, is nothing but the intermittent or periodical blindness,

usually consequent of the incipient cataract; which as well as *hydrophobia*, the *catemenia*, and other natural and preternatural events, our wise grandsires, who in all things, religious and political as well as medical, adhered to rule in preference to truth, would need suppose were humble attendants upon the *phases* of the moon. But common sense is coming apace into fashion; and instead of merely READ, MARK, LEARN; examine—*approfondissez*—take your draught from the bottom of the well—are the order of the day: let us however be careful to keep clear of the mud, Citizens.

MOON-BLINDNESS, generally makes its appearance in horses, at five, or before six years old; and the cataract may be a year or two, or more, in coming to perfection. The symptoms in the mean time are well known; cloudiness, imperfect sight, in one or both eyes; in some a discharge of serum, with an eye quite closed at intervals; well and tolerably clear again: in others, scarcely any discharge, but a gradual wasting and decay of sight. As to cure, it is not to be expected, unless in the very rare case of a cataract occurring in a naturally good eye, when I suppose the disease would submit to that method already laid down in humour-blindness; in general, moon-blindness is too much a disease of debility, to require those

considerable evacuations. Should however the disease be supposed to originate in obstructed humours, and a depraved state of the blood, mercurial physic, rowels, and tying up the temporal arteries or veins, according to the nature of the case, have been recommended; and I must acknowledge the last moon-blind horse with which I had any concern, had all that appearance, but I had been too often foiled to make any new attempt. Bracken says he couched one horse with success, but he does not tell us whether to render his success of real use, he made the patient a present of a pair of concave spectacles, and taught him their use; since what with the loss of convexity in the *cornea*, from the disease first, and afterwards from the operation, the horse would see but wildly after all, without artificial help.

The cruel and silly idea of putting out one eye to save the other, appertains properly to the old system, and is cousin-german to that religious practice of hanging or drowning a poor wretch, burning or burying alive a guiltless animal, for bewitching or being bewitched! And the perpetrators of these humane and legal acts, were *great and good men*—great and good men! Were they knaves or fools? They were surely far enough from fools, but an obstinate and implicit faith, and adherence to

systematic follies, has ever had the sad effect of changing honest men into knaves, and of leading the most able into the commission of acts which would disgrace an idiot. 'The putting out one eye is perfectly useless, since if the other be naturally good, the measure is unnecessary; if not, it can have no good effect, but may have the evil one of inducing a fresh inflammation, perhaps by sympathy, upon the best eye.

In a GUTTA SERENA, both eyes are generally affected, and are vulgarly called glass eyes, appearing clear and shining, although they admit little or no light. 'They are sometimes large and prominent like calves' eyes, at others small and flat, in colour often of a light blue, the pupil being deep blue, or black. 'The pupil neither dilates nor contracts, which is pretty much the same as to say, the eye, or rather its vision, is extinct; and that again is to say, no cure need be expected. 'The defect has always been supposed to originate in a want of irritability in the optic nerve. According to Darwin. Electricity. Blisters on the head. Opium and corrosive sublimate mercury, four or six weeks. Would not sneezing powders be beneficial in the beginning of the disease, or turning to grass, that the constant depending situation of the head in feeding,

might invite an accession of blood and nourishment to the eyes?

EXTERNAL ACCIDENTS. Contusions on the eyes are to be treated with coolers, repellents, fomentations or poultices, and bleeding. Sometimes from a blow or stroke upon the eye, the juices, naturally clear and pellucid, will stagnate and turn to a pearl colour, or quite white, over the whole surface, and the horse will be nearly or totally blind; but such symptoms will in a few days submit to proper treatment. Wounds of the eyes may be mortal if they penetrate the orbit to the bottom, where the branches of the optic nerves pass from the *cerebellum*; should the *retina* be pressed, which is composed of the optic nerve, and many small twigs of veins and arteries, blindness is unavoidable, and perhaps convulsions may ensue; the same may be expected from the fracture, or depression of the bones of the orbit, or socket, but a wound, or puncture through some of the coats and humours is curable; for instance, the *cornea*, or horny coat may be perforated, the humour let out, and vision interrupted, and yet the humour shall be replenished, and sight restored in ten or twelve hours time, as cockers often experience: with the exception, however, that the wound be not deep enough to touch the chrystalline humour, which would

become changed or darkened from the accident, and occasion *glaucoma* and blindness.

The treatment of wounds in these parts, must be conducted on the same principles with those of any other, respect only being had to their superior sensibility, and the danger of inflammation and defluxion. Bleed. A rowel in the chest, or belly. An opening diet. Walking in the shade. Avoid all harsh applications, particularly that common one in these cases, oil of turpentine. If the lid be divided, give but one stitch with a straight needle, proper for superficial wounds, the parts not being drawn too close, but only so far as to bring the edges together, that there may be room for the discharge, should the eye-ball be wounded. Honey of roses, one ounce; tincture of myrrh, one drachm, is the proper dressing. Dip a pledget of lint (for tow or hurds are too harsh) into the mixture warmed, and apply it fresh once a day, until the wound be healed. Should fomentations be necessary, take the following form: elder-flowers, red roses, and mallows, each a handful; nitre, half an ounce; Goulard's Extract, three tea spoonsful. Infuse in a quart boiling water, strain through a linen cloth, and when cold, add half a pint Red Port wine. Use two thick woollen cloths alternately half an hour, the liquor not being made too

hot, but warmed again, should it grow too cool; the quantity will last two days, and the eye may be fomented five or six times.

The Haw, probably bearing analogy with the *encanthis* of the human eye, is a preternatural enlargement and sponginess of the caruncle, or fleshy substance, in the inner corner of the eye next the nose; the excess of it sometimes causes the ligament which runs along the verge of the membrane, to compress the eyeball like a hoop, when the common operation of cutting out the haw is absolutely necessary, nor is there any danger, if too much substance be not taken away, an error sometimes committed by the farriers. Dress with honey of roses; if fungous flesh, sprinkle with burnt allum, or touch with blue vitriol. In case of defluxion and weakness, brace with aqua-vegeto. In very painful wounds or inflammations of the eye, diluted tincture of opium. Saline purges are very proper from their gentle and cooling effects, when such aid is wanted. In his Chapter on Moon-Eyes, Gibson recommends a mild aloe purge once a week, with the following useful practical observation, of which I had a striking example last week. He has known
“ a weak purge work powerfully two or three
“ days, without the least diminution of the
“ horse’s strength or loss of flesh; from foul-

ness by reason of redundant slime and
“grease.”

The mare which I mentioned, p. 64, was off her stomach, weak, her coat rough, dead and staring, and very hollow in her flanks. From her poor and meagre appearance I was almost afraid to purge her, but suspecting the real state of the case, I ventured upon the following dose, which I had often given to horses of her size and strength, with scarcely any but alterative and diuretic effects. Succotrine aloes, and Turkey rhubarb, six drachms each; myrrh and turmeric, each two drachms: aniseeds, two drachms; saffron one drachm; balled with syrup of buckthorn, and oil of amber. This began on Saturday morning, and did not set until Monday noon; operating the while with a degree of violence, which, however, did the mare no sort of injury; on the contrary, she has been sleek in coat, and in the best spirits ever since; but had the quantity of aloes been larger, or of the common kind, in her state of body, the injury to her constitution might have been considerable: an example of which I have before adduced. I must claim here a few grains of allowance for having said, that a balling iron ought never to be used: Few grooms, I believe, would chuse to present the lady, of whom I am now speaking, with a

ball, without such assistance ; we were farther obliged to put two halters upon her head, tying them in opposite directions, at a proper height, a person standing behind her with a whip.

ON THE MOUTH.

And first of the *LAMPAS*, from the Latin *Lampascus* ; this is an inflammation and tumour of the first bar of a young horse's mouth, adjoining the upper fore-teeth, which prevents his chewing. La Fosse and Bracken were in an error to deny the existence of this inconvenience. I have never known any danger from burning in the case, but out of respect to the opinion of Gibson, who asserts that the operation and usual repellents are apt to prevent a discharge, and prejudice the eyes, I advise the measure to be deferred a week, giving during the interval scalded mashes and warm gruel, and bleeding if indicated ; should the inflammation still continue, cauterize the tumid parts lightly, without penetrating deep enough to scale off the thin bone subjacent of the upper bars. Wash with salt and water first, and afterwards heal with a mixture of French brandy, Red Port wine, and honey. No. I.

RELAXATION AND SWELLING OF THE PALATE FROM COLD. Use the above mixture, with a little addition of pepper, ginger, or spirit of sal ammoniac.

BLOODY CHINKS OR CHOPS IN THE PALATE, from thistles, whins, or other prickly feed. Examine and wash with salted water, or salt and vinegar, using the mixture afterwards. From neglect, the roof of the mouth may be inflamed and ulcerated; puncture with a small pointed cauter̄y.

GIGGS, BLADDERS, OR FLAPS IN THE MOUTH, these are the old terms for soft tumours, or pustules with black heads, growing in the inside of the lips, level with the great jaw teeth; in some cart-horses they have been known to equal the size of a walnut, and at any size are painful, and prevent mastication. Draw out the tongue, and use the knife or cautery, cleansing and healing as above. The CAMERY or FROUNCE, or small indurated tumours upon the palate; cure as above.

BARBS or PAPS, are small excrescences under the tongue, which appear by drawing it aside; when preternaturally enlarged, cut them close.

CANKER IN THE MOUTH, or rather ulcers with little white specks proceeding from gigs and warts neglected; the cautery moderately

heated is perhaps the best remedy: I should suppose the mixture, No. I. with the addition of sal ammoniac sharp enough, but if not, apply several times a day, *Ægyptiacum* and tincture of myrrh, sharpened with oil of vitriol: or, sublimate water; or, burnt allum, honey, and tincture of roses.

HURTS IN THE TONGUE AND MOUTH, from sharp or heavy bits. Touch several times a day with No. I. to which tincture of myrrh may be added, proceeding with the sharper applications should they be necessary. Examine the jaw-bone, which is too often injured likewise, carefully removing any splinters. I have in the First Volume spoken of the cruelties inflicted in this way upon horses, by a race of indolent and cold-hearted block-heads, giving one dreadful example of justly merited punishment, and what I have since observed, has served to convince me, that the galling of the bits and trappings is frequently the occasion of those many instances we have of horses breaking away in single harness. Very frequently the brydone is so tight, that the horse's jaws are drawn up as if with a pulley, the animal half choked, and kept in constant pain. Frequently on the change of a horse, no care is taken to change the bit, which if not sufficiently wide, holds the mouth,

perpetually screwed up as a vice. It is a material part of the duty of grooms and horse-keepers, often to inspect the inside of the mouths of their horses.

WOLVES TEETH are said to be two small superfluous ones, growing in the upper jaw next the grinders, and to be very painful to the horse; it was the old practice to loosen and wrench them out with a mallet and carpenter's gouge, by which rough operation the jaw was often materially injured; granting the necessity of their extraction, it behoves the veterinary surgeon to furnish a milder and safer method. In general, all teeth of irregular growth, whether inwards or outwards, which, during mastication, prick and wound either the tongue, gums, or lips, are styled wolves teeth. The upper teeth of old horses sometimes over-hang the nether so far, as to wound the lips. In every case of this kind, the file is the most proper instrument; first a rough, then a smooth or polishing one, the mouth clean washed after the operation, with salted water warm. For loose teeth, the gums being swollen, puncture with a lancet, and wash, with a decoction of oak-bark, honey, and sage, adding a small quantity of distilled vinegar.

Dr. Darwin asks, "does the enamel (upon

“human teeth grow again when it has been perforated or abraded?” I have tried to restore it for a considerable number of years together; and if any thing can possibly effect such end (which I much doubt) I think it is the constant use of the bark, which I have ever found the best dentrifice. Much will depend upon the age of the subject. About ten years ago, a man whom I chanced to know, published a dentrifice under the title of Eastern Tooth-powder, or some such name, the basis of which was japan earth, and which instead of polishing, actually abraded the enamel from the teeth of thousands, and of my own among the rest of the gulls. The constant use of bark tinges the teeth with a yellow hue. Strong acids have been frequently recommended: they are certain destruction to the enamel. I know of nothing equal to charcoal and soap, both for the cleansing and preservation of the teeth.

I am again called upon by Mr. Blaine (vol ii. p. 93) and, as usual, upon a most important occasion, no less than that of my having propagated that momentous error of the old school, the excision of excrescences under the tongue of the horse, called *barbs* or *paps*. In a long and windy note, this writer observes: “Persons who profess to instruct in any art, should be doubly careful how they receive the errors of.

others, and propagate them blindly, from a want of experiment and observation." In the truth of that remark, I join most cordially, with the addition, that it behoves pretenders to have an especial care, least by their own logic they convict themselves. Is there any proof, for example, of Mr. Blaine's experience in the diseases of horses, and his consequent ability to *instruct*, in his assertion, that jaundice, or yellows, is an unfrequent, and that diabetes is *not* an unfrequent disease, in the horse?—a proposition which every farrier's apprentice, or tea-kettle groom, knows must be read backwards. To return to paps and barbs—as far as my own experience or information goes, barbs have ever been supposed to denote, primarily, a preternatural and inconvenient enlargement of the paps, or heads of the glands or kernels, under the tongue of the horse or ox; generally, any excess in the folds of the skin of the nether jaw. These excrescences are sometimes the subject of inflammation, at others, there is little or no inflammation, but, in either case, they impede mastication, and occasion the animal to bite and wound his tongue; when excision becomes necessary, and I have never, in a single instance, either known, heard, or read of the smallest danger or inconvenience resulting from such excision. Mr. Blaine allows, that the excising the superfluous skin might not be at-

tended with any danger, but the removal of the paps would be fatal, and might probably strangle the animal.—Very true indeed. Equally true it is, that cutting a superfluous wart from a man's nose, would be a harmless and perhaps salutary operation, whilst the excision of his whole nose, or even the half of it, might prove a dreadful eye-sore to him, and still more to his wife. Did Mr. Blaine imagine, that it could ever be possibly intended to scoop out the paps, as boys do modicums from apples? In this case, common sense ought to have dictated to him the necessity of giving examples of mal-practice or danger.

This wretched trifling is adduced, as another proof of the ignorance of (amend the expression) anti-collegiate times: what it really does prove, requires no explication. Bracken and Bartlet, it seems, were unacquainted with the anatomy of the horse, an opinion with respect to the former, which can neither be supported from his writings, nor his own acknowledgment, since he informs us, that dissatisfied with the original work of Snape, and the Compendium of Gibbon, he had engaged in a similar work himself, which it is probable he did not live to finish. Mr. Blaine seems aware that the old anatomists were acquainted with the nature and uses of the paps, of course there is a little disingenuousness in the case. Even old Ger-

vase was not uninformed, “ that the barbs are
“ two little paps which naturally do grow un-
“ der every horse’s tongue whatsoever, in the
“ nether jaw,” &c. Markham’s Maister Piece,
p. 170.

In the LAMPAS, Mr. Blaine proceeds with unusual caution. During the time of dentition, and even after that period, the roof of a young horse’s mouth will sometimes become inflamed and tumefied. This may continue, and prove very painful and irritating to the animal. I have, more than once, caused the cautery to be run lightly over the parts, with immediate good effects. Mr. Blaine, so generally partial to the actual cautery, here recommends the knife.

Vol. i. p. 336.—“ The Arabian horses are
“ the fleetest and most durable in the world.”—
Vol. ii. p. 96. “ I have had occasion to re-
mark that the English, though excellent riders,
as far as regards their seat upon a horse, are in
general strangers, most of them, to what may be
termed bridle-management. They usually con-
sider this appendage only as the means of stop-
ping or guiding a horse, and sometimes as part
of the means by which they stay on him, &c.
&c.” These hacknied observations, originally
made before Mr. Blaine’s grandfather existed,
by continental riding masters, and which might,

with equal truth, be applied to the *manege* itself, as to our real jockey system, are, amongst numerous others, a sufficient proof of his total want of information on the subject of Arabian horses, and English horsemanship. Had St. Bel lived, he also would, I fear, have exposed himself as much on this subject, as he did respecting my old friend Rush's mare. The late Mr. Rush, Inspector General of Regimental Hospitals, had purchased a mare, which, it turned out, had stolen a leap. A short time before foaling, the mare being very ill, and exhibiting the usual tokens of approaching parturition, St. Bel's opinion was asked. The poor Frenchman, not long arrived in this country, and, I suspect, brow-beaten, and put off his guard, by vulgar superciliousness, pronounced, in broken English, the mare would die, "for her inwards were coming out." But a certain predecessor of Mr. Blaine, of high desert, for the beauty of his type, the fineness of his paper, and the respectable price of his book, beats Blaine, all to nothing, at closet jockeyship, and would have us ride our race-horses without a pull! A wag observed to me, that my book had been the occasion of much ridiculous mischief, by teaching, that "a spice of the jockey ought to be blended with the veterinarian."

On the Diseases of the Eye (Vol. ii. p. 670)

we will not regret Mr. Blaine's plagiarism or total insufficiency, since we may promise ourselves ample compensation from the superior abilities and practical researches of Professor Coleman, who, according to Mr. Blaine, "has paid more attention to the subject than any person in this kingdom, or perhaps in the world." In the first paragraph, the ideas appear to have been copied from Gibson. What a triumph over poor Taplin, because he chanced to render pipe or duct, by the name of bladder!

The hacknied subject of the HAW in the eye (p. 72. 671) Mr. Blaine has treated, as he supposed, for his own purpose, and precisely with his usual success; on no account indeed, has he shewn himself more weak, or more deficient in practical knowledge. It is totally false, that any respectable writer has "called the nictating cartilage the haws"—that the membrane is a late discovery, or that the haw, which is a real morbid excrescence, is a protection to the eye. That the caruncle is intended as a protection is as obvious as its existence. I should not wonder at any absurdity in the operations of a common farrier, but what example has Mr. Blaine to produce of loss of sight from the excision of the haw? I much doubt that he has ever seen the case at all, upon which he decides so peremptorily. I have now and then wit-

nessed an excess of the caruncle in the human eye; in horses very frequently, and also the operation in the latter, from which I never heard even of the smallest inconvenience. Within these two months I have seen an aged gelding, the haw in one of the eyes of which has been increasing since five years old, at present is nearly in contact with the pupil, and, in the opinion of the farrier, bids fair in the end to blind the horse. He remarked, it ought to have been reduced in the horse's youth. The enlargement appears rigid and without inflammation. In confirmed opthlamy I have not observed any particular enlargement of the caruncle. Gibson's proximate cause of the haw is perhaps correct; *an obstruction of the excretory duct, the function of which is to carry off superfluous moisture from the glands on the inner corners of the eyes.* I should be glad, however, to find a real and effective substitute for cutting out the haw, which must be a painful and irritating operation.

In the first number of a certain miscellany (the Monthly Register) which professes to give something on the veterinary subject, my attention was attracted by a most curious dissertation on the Haw, and an equally admirable puff direct of the Veterinary College. The gallant author proceeds—"I shall not venture

to say, that the first discovery of this membrane (the nictating) in the horse, is to be attributed to the Veterinary College, (modest, since the membrane was known to the old writers) but I will boldly affirm, that if the practical application of this discovery were the only benefit derived from its professors, the public mind would have been amply repaid for all the expence and solicitude attending the institution.” —For my part, I shall venture to say, that it is well the College has a good stock of original merit, as a national institution, or the senseless puffs of its various “d——d good-natured friends” would absolutely work its ruin, in the public esteem. In No. 2. of the above Magazine, as the title of p. 141, I observed, DELABERE BLAINE—below, I found a criticism on Mr. Blaine’s work, with the following extraordinary announcement, which I hasten to communicate to my medical readers, that they may, if they please, take immediate advantage thereof: On account of the defects of the Nosology of Cullen, and the failure of Darwin’s attempts at improvement—“some more methodical and scientific arrangement may be reasonably expected from the present (Mr. Blaine’s) attention to the subject.” By whom the above articles were written I would

not presume even to guess. There is farther a consideration, which ought to have had weight with Mr. Blaine. Is he not plainly injuring the reputation of his own labours, as an anatomical writer (the only source from which he can, thus far, reasonably derive any expectation) by placing such a stress on very trifles, and pretended discoveries, of little or no consequence if real?

CHAP. IX.

ON THE DISEASES OF THE LEGS AND FEET,
AND OF LAMENESS FROM RELAXED OR
CONTRACTED LIGAMENTS, &c.

THE GREASE.

AT the head of St. Bel's Essay on the Grease, we find the following quotation from Montaigne: "I wish that every one would write only what he knows, and as much as he knows:" in this case I fear our professor has gone farther than Montaigne's wish, by writing somewhat more than he knew; however in the Prize Essay of a juvenile practitioner, a little flourish is pardonable; and the Essay contains some excellent remedies, and in general, a very rational method of cure.

The grease in horses is an extravasation, or bursting from the vessels, and afterwards through the skin, of *serum*, or simple humour, in the legs and heels, from the want either of exercise, or the recumbent posture, to promote

the circulation of the fluids in those depending parts, “ as (according to our veterinarians, “ whose opinion is here sanctioned by Dr. “ Darwin) the column of blood pressing on “ the origins of the veins of the lower ex- “ tremities, when the body is erect, opposes the “ ascent of the blood in them ; they are more “ frequently liable to become enlarged, and to “ produce varices, or vibices, or, lastly, ulcers “ about the legs, than on the upper parts of the “ body.” That such is the cause, appears from the well known circumstance of the horse being free from grease abroad, where he constantly walks about to obtain his food, or stretches himself upon the ground at his ease. The discharge being greasy, appears to be peculiar to the horse, as I have before noted in molten-grease ; that it is so fetid in this case, is not to be attributed to any original foulness and malignancy, as our grooms commonly suppose, but to the subsequent cause of the humour being lodged out of the verge of circulation, where it in course soon corrupts.

I have described the disorder as it may speedily happen to a horse in the best condition of body, under the hands of a bad groom, the animal standing as a mere fixture fastened by the head in his stall, without exercise, his legs heated and fretted into cracks

with dirt; but the grease may be complicated with, or occasioned by an impure state of the humours, by laxity and weakness of the vessels, and a serous and impoverished blood; or lastly by predisposition from the natural conformation of the limbs. Round fleshy-legged horses are notoriously subject to this malady, which is as much as to say, it prevails most among cart-horses; and that generally speaking, the more blood a horse has, by so much the easier he is preserved from the grease. Not but some draught cattle have flat legs with the tendon very distinct; a point which deserves the attention of the breeder.

The necessary measures of prevention, and the minor remedies proper to the incipient disease, have already been set forth in the Chapter on Stable duties, Vol. I. I have said, that some round-legged horses will not, with whatever care, stand clean in the stable during the winter season; of course such ought not to be kept but where they can be constantly accommodated with a run abroad: and in an inveterate case, a field to walk about in, is at least three parts of the cure, nor ought such to be undertaken without that advantage, for it is else generally palliative and deceptive; the disease, after a number of fresh attacks, terminating its career in canker, graped heels, and

stiff joints, for which it may not be in the power of art to furnish a remedy.

Should the tension not subside, nor the cracks heal in consequence of the milder applications, but the hair begin to stare, discharging greasy drops, the swelling increase and become painful, the horse catching up his leg and resting upon the toe; the indication is, that the humours are faulty, at least superabundant, and require evacuants, and that the external applications must be of the more efficacious kind. It may perhaps be necessary to bleed. Give diuretics immediately. I always prefer a course of salined water to any of the usual diuretic balls, and have a very good opinion of a decoction of fir-tops, in which, sweetened with honey, the purging salt and cremor tartar, with the addition of nitre, if you will, may be dissolved. Plenty of this will make your horse urinate enough to float your stable, besides scouring and unlading his bowels. However, if you be inviolably attached to precedent, and nothing will suit either you or your horse, but a good urine ball, take the following from our worthy friend Bartlet: Yellow rosin, four ounces; salt of tartar, and sal prunellæ, of each two ounces; Venice soap, half a pound; oil of juniper, half an ounce; give a ball of two ounces weight every morning. OR. Nitre,

two ounces; camphor, one drachm; ball with honey. Almost all these articles I have observed to disagree with horses of delicate stomachs; and I think aniseed, Van Helmont's *sôlamen intestinorum*, a good corrector of them: or the balls may be washed down with a horn or two of warm ale and powdered aniseed sweetened. Aloetic, or mercurial purges, followed by a short, or long alterative course, or not, according to the case. It is however very material to be noted, that if the stagnation of the humour arise from a lax, dilated, atonic state of the vessels, and poverty of the blood, the evacuants must be of the gentlest kind, the alterants must partake of the restorative class, cordial ball, steel, &c. and after cessation of the discharge, the tone of the defective vessels should be well confirmed, both by the actual and medical bracers; to wit, bandage and embrocation.

Clip away the hair, and let ablution, as already directed, be rigorously, and punctually persisted in, twice a day (no excuses from John, or juggling between him and the Doctor) with the fôtus afterwards, or fomentation with flannels. Poultices (see Index) and the parts constantly bound up, and well defended from cold. Rowel or seton in the breast, belly, thighs, or all of them. Loose stable, and walking exer-

cise, twice a day. Touch the sores with the ægyptiacum mixture (Vol. I. Stable), and if they become rigid and dry, rub in the following ointment, or use it upon lint or tow: The ashes of the finest hay, goose-grease, neat's-foot oil, and sugar of lead. Or. Yellow basilicon and honey, two ounces each; verdigrease in fine powder, three drachms. Or. Black snails, burdock-root, yellow soap, honey, and sugar of lead; beat well, and mix thoroughly. For an occasional emollient wash, warm skim-milk and water, with a little aqua-vegeto. When from the inveterate foulness of the ulcers, the most powerful restringents and desiccatives are demanded, the following forms are proper. A DRYING WATER. White vitriol and burnt allum, two ounces each; ægyptiacum, one ounce; lime-water, two or three pints; wash two or three times a day. Or. Dissolve half an ounce of Roman vitriol in one pint of water, decant into a quart bottle, adding half a pint of spirits doubly camphorated, same quantity of distilled vinegar, and two ounces ægyptiacum. Or. The following drying unguents. Honey, four ounces; white or red lead, powdered, two ounces; verdigrease in fine powder, one ounce. Or, opiment, one ounce; verdigrease, three ounces; soot, five ounces; honey, one pound; soft soap, and a small quantity of an-

slacked lime: mix thoroughly over a slow fire, and use once a day. The objections of St. Bel and others to the use of strong restringents and desiccatives, from the danger of a retro-pulsion of the morbid humour, must be understood as applicable only to the earlier stages of the disease, and the practice of common farriers, who are in the habit of an exclusive exhibition of those, without the necessary concomitant internals: when the ulcers and cracks are of long standing and foul, and the greasy ichor has acquired an inveterate habit of discharge by those outlets, scarcely any medicaments can be sufficiently harsh or potent; and I have often been tempted to try the actual cautery by way of a desiccative, and of changing the nature of the disease by rendering it acute.

From the constant greasy discharge, there will be a fungous growth of the hoof; or, in modern professional slang (on a volubility in the use of which, every tyro so highly piques himself,) the discharge *takes on the action* of producing horn! Cut down the crust and shoe in such form, that the frog may come to the ground. The heels will be violently swelled, and the hair being pen-feathered, or bristled, and distinct, will discover the skin of a dead white, or livid colour; little bladders will arise and become confluent, forming ulcers covered

with granulated flesh, when the heels are said to be graped. These swellings should be scarified in time, with the knife, *secundum artem*, to evacuate the sanious and bloody contents: some perform this with a heated knife, which perhaps may be preferable, if loss of hair and scars be disregarded. Cover well with anodyne poultices. Foment, &c. as before. Grapes upon the heels of long standing and dry, are incurable, unless perhaps they could be eradicated either by knife or caustic, and the cure conducted with the horse living abroad.

Horses living upon grains, and other washy and unsubstantial food, are very liable to grease; the foolish custom of clipping, or pulling the heels intirely naked to the skin, in cold wintry weather, as we often see poor post-horses served, also subjects them to chilblains and chaps, which soon become greasy. It may endanger a relapse, to suffer horses recovering from the disorder to go abroad with the cracks exposed to the air; a Burgundy pitch plaister is useful.

The CANKER IN THE FOOT, usually arises from grease and ulcerated thrushes. It is of a cancerous nature, and will in a very short time rot the sole, and destroy the muscles of the bottom of the foot, which however will be reproduced after a cure. If neglected only a

few days, it will grow several inches high, into a kind of cauliflower head, but of a pale red colour. Cut away the hoof wherever it press upon the tender parts, and soften with neat's foot or linseed oil, and every time of dressing bathe all about the coronet with chamber-lye, in which iron has been quenched. Dress at first once a day with aquafortis, oil of vitriol, or butter of antimony; or the nitrous acid, half an ounce, with corrosive sublimate two drachms. Red precipitate. An ointment may be made with any of those, mixed with honey and verdigrease. The common method of dressing is, to extirpate the fungous flesh with a knife, and apply pledgets of tow dipped in the ointment, wedged as tight as possible. This frequent dressing at first is absolutely necessary, as the great moisture of the canker drowns and weakens the force of the most powerful oils. When the fungus is pretty well conquered, and does not rise upon the dressings, once in two days will suffice. Strew precipitate and burnt allum upon the new growth of flesh, until the sole begin to grow. Aloetic or mercurial physic. Alteratives with guiacum. Salt marshes.

SCRATCHES, RAT-TAILS, CROWN-SCAB, WARTS, MULES. These are generally concomitants, or different appearances of the grease,

and consequently demand the same methods of prevention and cure. Scratches or Crepanches, are long scabby chaps, or clefts, either dry, or with a small fetid discharge, situated upon the hinder legs, between the fetlock and the hock. Rat-tails, so denominated from their appearance, are excrescences of the hair and integument, upon the pastern and shank, either moist or dry; the crown-scab is a defluxion of the grease upon the coronary ring. Warts and mules breed upon the heels; the latter so named from an Italian word, is, I believe, a kind of kibe or chilblain.

SCRATCHES AND RAT-TAILS are often occasioned by neglect, and the horse standing in hot dung and filth. Begin the cure by getting off all the scurf, and making them raw, or if necessary, laying them open, or paring off with a knife. Emollient and suppling applications may be wanted, of which variety has been prescribed, as also of those of different intent. The cure of a crown-scab is sometimes a matter of considerable difficulty, for in a bad case, the milder applications have small effect, and the more powerful, as oil of vitriol, and such as are in common use, injure the coronet, and endanger the loss of hoof. Soak the parts once or twice a day, with the tobacco infusion, and the tobacco itself may be bound on as a

charge. Or, a charge of marsh-mallows and yellow basilicon, spread on tow. Touch with ægyptiacum and brandy; camphorated spirits, and as much sal ammoniac as it will dissolve; or the spirit of nitre and sublimate as before. Purges, &c.

WARTS. Extirpate them with the knife, and apply a styptic of vitriolic acid. When the bleeding is perfectly stopped, touch the roots either with the actual or potential caustery. If the wound be large and sore after the eschar is sloughed off, dress with the Burgundy pitch plaister; if otherwise, with the diachylon only.

MALLENDERS AND SALLENDERS, for their description see Vol. I. Foul and gourdy-legged horses are most subject to them, and in such, it is not always safe to repel the discharge without purging or alterative medicines. Clip the hair close, and wash often with a strong lather of soap and water warm. Stale urine. Dress with strong mercurial unction spread on tow. Or, Frequent dressings with Burgundy pitch, common frankincense, tar, diachylon, and quicksilver, well rubbed down with Venice turpentine.

THE BROKEN KNEE. Wash the wound clean from small specks of gravel or earth, with a linen rag and warm soap suds; wipe

dry, and apply brandy. Stale chamberlye and salt, frequently applied. Friar's balsam has healed broken knees very speedily. Or. Bind upon the parts tow, dipped in tincture of myrrh and brandy. It may be necessary to poultice, and afterwards heal with wound-ointment. The knees being swelled, bathe with brandy and vinegar warm. It is said that pigeon's dung, honey, and goose-grease mixed, will cause the hair to grow speedily; and perhaps a piece of sheet-lead, bandaged upon the part, might occasion the hair to grow smooth and even with the old.

I have of late observed an improvement in the hose, or boots, which defend the legs of race-horses in travelling; they reach above the knee, and are of the same stuff as the clothes, with a leathern patch in front of the knee, and three tyers behind the leg; the hose or guard kept up by straps on each side, externally, going over the withers and buckling on each side, about the middle of the shoulder.

This guard for the knee should be used to sale horses during their journey from the country, and to valuable horses when exercised by careless boys; and some kind of guard fastened above and below the knee, would be of great use to post-horses worked immediately upon a recent fall, since they are so liable to a repeti-

tion of the accident whilst the knee is yet stiff, and the wound being again laid open, the mischief is past remedy. The speedy-cut might as well be prevented by a leather guard, as knocking. These wounds should be attended to in time, and require applications of the same kind as broken knees.

WINDGALLS. (Vol. I. see Index, and for a description of defects, I refer the reader generally to Vol. I. as above, and to the subsequent pages.) Blood-horses, and those which are used for speedy travelling, seem to be most subject to windgalls.

CURE. The best stable attention so often recommended; washing twice a day in cold water; embrocation, bandage, blistering two or three times successively. Grass. Early prevention when the colt is first worked, and duly continued. When these bladders prevail in a great degree within the pastern joints, and have arrived at their worst stage, that the horse stands and travels in constant pain, and is very unsafe to ride, all palliatives are so much time lost; even firing is ineffectual, as being too superficial; and I think in some cases even adds to the pain of windgalls, by impacting that jelly, the absorption of which it cannot promote, still closer. As to taking up the veins, you might as well draw the horse's teeth for a cure.

Excision is then the only remedy, the operation for which, Bracken has improved from the old farriers; his improvement consists in making the incision deep, and in the use of escharotics, with the intent of eradicating the substance of the cyst or bag, previously to healing the wound, without which the cure would be only partial. My experiment of this method is as follows: About the year 1779, I purchased at Tattersal's, expressly for the purpose, a bay hackney mare, got by Belmont, ten or twelve years old, having the most windgalls of any horse I could find, out of a hundred or two. Being of an excellent constitution, and the best temper in the world, she endured the operation without flinching, or giving us the smallest trouble; and the wounds were so well-conditioned, that they healed surprisingly soon, notwithstanding they were most injudiciously and dangerously exposed, without the least covering, an hour or two in a dirty yard, whilst it rained, and was very cold. Her ear and lip were moderately twitched, her head tied pretty high, and one leg held up, in order that her weight being thrown upon the other, the windgalls might be the more distended and palpable. A farrier of the name of Field performed the operation under my direction, by pressing the bladder with the fingers of the left hand,

on the other side of the joint, to render it tense, whilst he made an incision with a pen-knife, either upward or downward, with the course of the hair. Being timid at first, he made several strokes before he penetrated the cyst, which was remarkably thick, although the mare was very delicate and fine skinned. The gelatinous or glary fluid issued out, and left the bag perfectly flaccid. We made nine different incisions in her four legs, completely evacuating every bladder which could be distinguished by the finger. Very small flux of blood. Bathed instantly with warm brandy. In a few hours we applied the following escharotic to the divided cyst in each wound, which was continued until the substance of the cyst was destroyed; the wounds were then soon healed with some spirituous application, and if I recollect aright, Burgundy pitch plaister. The UNIVERSAL ESCHAROTIC POWDER, from Dr. Bracken, p. 239, Vol. II. Equal parts allum, and white vitriol in powder, calcine in a crucible over a hot fire, or upon a red-hot fire shovel, until you reduce them to a fuzy white calx, which pulverize with equal weight of red precipitate, and keep in a dry bottle, well corked for use. This the doctor recommends, and I, his disciple after him, to the farrier, in preference to the more violent

escharotics, which sometimes corrode the tendons themselves, as well as the superfluous substance intended to be destroyed. Being resolved not to make the experiment by halves, and having a right to a leap of Croney, I sent the mare to straw-yard, and had her covered in the spring. She proved barren, and came up after a run of a year and a half, perfectly sound, her legs as fine as when foaled, and the marks of the operation scarcely visible. I rode her a few weeks, and I perceived she frequently dropped in her joints. She at length fell sideways with me, in cantering down hill, and doubling my left knee, under her, nearly dislocated it; the laxity and weakness of the part remain as an everlasting remembrance of her, to this hour. But I am by no means convinced, that her dropping related at all to the operation which had been performed, and which I think deserves farther trial. Surgeon Woodthorp, then of the dragoons, an amateur and excellent practical judge of horses, and, amongst our medical gentlemen, one of the best qualified for veterinary practice, if he chose the trouble of it, took this mare into Nottinghamshire, where I was afterwards informed she won a match, and was then sold to carry a lady, no windgalls reappearing, nor any complaint of her going unsafe. The reader

will excuse my circumstantiality and mention of names, to the observance of which I am induced, by reading certain cases which bear the most palpable marks of fabrication. By this method, windgalls upon any part of the limbs, may be safely eradicated, and this brings me to—

The BOG-SPAVIN, upon the hollow of the hock behind, or jelly-bag, which was exsected, and a perfect sound cure made upon a colt by Bracken (see his Second Volume, p. 214.) Cast the horse, and let a person press the windgalls which appear between the bones on the outside of the hock, to render the bladder more tense and palpable for the operator. Keep clear of the vein, and cut boldly and deeply into the tumour. Apply the corrosive, and secure it, by introducing dossils of lint tied with a thread, and dipped in oil of turpentine. A little Armenian bole may be mixed with the powder, which ought to be used once in three days. Heal with common digestive. If a swelling of the joint ensue, foment. In 1788 I bought a very fine young horse for a trifle, so lame with bog-spavins as scarcely to be able to creep, with a view of curing him; but I could not find a farrier in my neighbourhood then, who would undertake the operation, and I have no dexterity of that kind my-

self. I have had several horses afflicted with this malady, and can assure those from experience, who are in the predicament, that blistering, firing, taking up veins, and fomenting, in short any palliative method of cure for it, will rather benefit their farrier than their horse.

In No. I. Veterinary Transactions, Professor Coleman says, “therefore the opening of windgalls cannot succeed.” I must own, the Professor’s short theoretical observations on this head, are by no means satisfactory to me; and I wish before he had decided so peremptorily upon a matter of great moment, that he had attended to the case recorded in Bracken, and to the experiment I have just related; at any rate, that he had not left the matter as he found it, but had favoured us with some practical and decisive reasoning, to which we should have paid all due respect. With regard to the new discovery of the identity of windgalls and mucous capsules, which at present remains hypothetical, its importance is nearly as great, as whether we adopt the old, or the new term. The nature of the malady, the secretion and purposes of the mucus, and the causes of its extravasation, have been long well known, and veterinary science stood rather in need of a good method of cure, than a new name. I acknowledge, and indeed my reader must have

perceived, that I have considerable apprehension, from the various new nomenclatures, at present afloat on the ocean of science.

Mr. Coleman observes, “it has not been generally understood, that the same bags exist in all horses when first foaled.” It may be replied, that no-matterer in physiology could be unacquainted of the existence of mucous glands, although such an one might probably be uninformed, for a time, that the glands had changed their names to purses or capsules. As to the existence of bags on the joints of horses previously to labour and domestication, neither men acquainted or “unacquainted with the subject,” could possibly be apprized of them, for the best of all possible reasons—their non-existence; labour and straining are necessary to convert these mucous glands into tumid and palpable bags, granting the identity of the *bursæ* and the windgalls, which is yet far from proved. The eliminated mucus may have formed to itself a bag. See Bell’s Anatomy on the *bursæ mucosæ*. Lastly, (for my habits have led me to a much greater familiarity with the living, than the dead horse) is every windgall situated precisely upon a mucous capsule? If so, the whole important result is, that we have only to do with the *bursæ* in their diseased, not their natural state, and the matter is brought

to a level with Mr. Blaine's grand discovery relative to barbs and paps. Mr. Coleman speaks of "erroneous and fatal practice," from what he styles false suppositions, evidently pointing out those who have opened windgalls; but has he any facts or proofs? Was Bracken, the first regular professional man who opened windgalls; one of the "not well acquainted?" I am concerned to observe, that the Professor has hinted approbation of the common practice of farriers in using the cautery to windgalls; a remedy, as far as I have seen, worse than the original disease; and by which, in the language of the thoroughly practical Osmer, (such are the men this country wants, although it so ungratefully and unwisely neglected him,) "the outer tegument or skin is rendered rigid and indurated; hence the pain occasioned by these tumours is greater than it was before, and the horse is fit for nothing but the cart."

OSLETS, SPLENTS, SPAVINS, DISTORTIONS, CURB, RINGBONE. These bony excrescences, differently situated, all originate in the same proximate cause, an extravasation of the cement, mucilage, or oil of the joints, which gradually condenses and becomes ossified. I have said, that when completely ossified they are incurable; but probably, a radical operation, judiciously performed,

might succeed. The owners of all young horses should constantly watch the parts whence these excrescences put forth, and take them in hand instantly, when success need not be doubted; since the matter not being firmly condensed, its absorption might be promoted by repellents, and it might be compulsively returned again into the reflux blood. Watch any invisible lameness or pain, as there is always an uneasiness in the parts previous to an *exostosis*. Rub hard three times a day, twenty minutes each time, with a piece of Brazil wood, or any smooth substance. Rub in goose grease, and the most active discutients, camphorated spirit, with sal ammoniac, and a little distilled vinegar. Puncture. Blister a number of times. Brisk mercurial physic.

I have my doubts concerning a blood-spavin, *varix*, or dilatation of the vein, within-side the hock; not that such a thing is impossible, but because our best writers speak confusedly about it, evidently from the accounts of the elder farriers, who describe a bog under the name of a wet-spavin, but erroneously suppose it fed by the master-vein. Supposing the real existence of a *varix*, repel and bandage; if that will not succeed, tie the vein, a crooked needle and waxed thread being passed under it, both above and below the swelling, which

must be suffered to digest away with the ligatures; dress with turpentine, honey, and spirit of wine.

Gibson records a successful operation upon a confirmed bone-spavin. Both he and Osmer improved upon the method of the old farriers, in this case; though these last, according to Markham, used sometimes to dissect and lay bare the spavin, which they then chipped off with a fine chissel, a quarter inch broad, and a hammer, keeping clear of vein and sinews: then dressed with verdigrease and nerve oil; in three days washed with vinegar; plaister of pitch, rosin, and turpentine; healed in seven days.

The spavin in Gibson's case, was deeply seated in the hock of a hunter. He first applied as strong a caustic as he dared venture, for fear of hurting the tendons and ligaments, but ineffectually; when judging rightly that his hand possessed an elective power which the caustics had not, he determined on the cautery. The irons were made in the shape of a fleam, that they might penetrate deep, but not pointed; rounded on the face, and thick towards the back. Some small blood vessels were divided, and a pretty large effusion of blood ensued, to which a styptic was applied. The wound half an inch deep, and an inch long, with two or three short lines on each side, was dressed with

dry tow until the third day, that the hemorrhage might be fully stopped. Several days a gleet of viscid water; great pain, inflammation, and swelling of the hock. Fomentations—First dressings, turpentine on tow; afterwards with finely ground precipitate, two drachms to one ounce turpentine. Plentiful discharge of thin glutinous matter, for two months, before the skin began to close and cover the wound, when the matter became laudable. Walking exercise. The precipitate which entered into the nervous parts, supposed of great benefit. Physicked during the cure. Sore healed in three months, and the hair grew, excepting a small spot, over which a defensive plaister. Hunted same season, and ever afterwards perfectly sound.

In May 1805, perceived in a six year old gelding, lately set on his haunches, and intended for a charger, an incipient thoroughpin, and disposition to bog-spavins in both hocks. Applied a perpetual blister to the thoroughpin, which was continued three months, the horse being moderately worked the while. The thoroughpin was perfectly cured, or rather prevented from reaching maturity, or the incurable state; and the spavins, a thing which I did not expect, receded, and the parts became fine.

Osmer's method (Spavin) with which however he does not warrant success, was to introduce a caustic enveloped in lint, in a particular manner, which I have no room to describe; and I only notice it to state, by way of caution, that Mr. Robson's Spider, the famous trotter, was killed by the bungling attempt of a farrier at this method; the corroding poison of the application was so effectual and speedy, that it reached the horse's heart in about forty-eight hours, when he died in great agonies.

DISTORTIONS OR LUXATIONS OF THE BONES OF THE HOCK. By a wrench or strain, sometimes the small bones are jarred and displaced. The swelling generally appears on the middle and forepart of the hock. Extreme stiffness and inaptitude to motion. If possible, force the bone into its place, filling up the forepart of the hock with tow, and the cavities on each side, and also all the other cavities and vacancies, applying a piece of paste-board, soaked in vinegar, over the distortion, and binding the whole with a broad soft roller or list. Six months run at grass.

In firing a **RING-BONE**, use a thinner instrument than common, drawing the lines barely a quarter inch distant, and crossing them obliquely like a chain. Mild blister, afterwards Burgundy pitch plaister. This, however, I

have known not to succeed. As to drawing the soal, it is perfectly useless; and the operation, as described by Solleysel, with the introduction of the red hot knife, is dreadful to think of.

JARDONS, HOUGH-BONEY, OR CAPPED HOCKS (Vol. I. Defects.) Indurated tumours, to be treated in the beginning, like initient spavins and splents; when confirmed, they are nearly as difficult as those to remove.

STRING-HALT, although incurable, may and ought to be treated with palliative remedies, which will prevent its progress to the last stage, when the complaint becomes exceedingly unsightly, and considerably diminishes the value of the horse. Loose stable, and as much running abroad as possible. After a hard day's work, a warm bath for both hinder legs, up to the hocks, as long as the water continues warm; rub bone dry with linen cloths. Repeat in the morning. If very bad, comfortable fomentations. Anoint the back-sinews, and about the hocks, with a liniment made of goose-grease and spirit doubly camphorated, well rubbed in. I nursed the string-halt many years, and should be well content to experience the same trouble to the end of my days, on the same terms.

HURTS UPON THE CORONET, TREADS,
SANDCRACKS, CORNS, GRAVELLING,
BRUISED THRUSH, RETRAIT, CLOY-
ING, &c. QUITTOR, AND FALSE QUAR-
TER.

In HURTS upon the Coronet, and Treads on the Heels, the rationale is giving instant attention; when that may be made whole in a day or two, which, if neglected, may cost months and pounds, and at last be an incomplete cure. I had once a fine cart-horse, three months in the stable, under the farrier's hands, and five months afterwards abroad, in consequence of a simple tread upon his heel by another horse. Cleanse well with warm suds or urine, dress with tincture of myrrh and brandy, or Friar's Balsam, no greasy applications on any account. Bind up and preserve from dirt. If a wound between hair and hoof, from a stub or any sharp body, and the membrane bulge out, use the sublimate water, as well as the foregoing mixture, or sal ammoniac in camphorated spirits. Bind a piece of thin sheet lead, or card, upon the part. Dress once a day. *See Wounds.*

The SANDCRACK, called by the French, *Seime*, is a cleft in the hoof, either up and down, or with the grain, in which latter case it is much easiest cured. The cause is dryness of the hoof, either natural or accidental, and the malady should be prevented by those stable measures of ablution, cold or warm, already treated on at large. Should the cleft be considerable, at no rate work the horse, but let him walk abroad in a light bar-shoe with the hoof bound up, and occasionally attended to. Cut the edges smooth with a knife, that the horn may not press the tender parts; wash clean with warm suds, and dress with tincture of myrrh, applying tow dipped in the tincture; bind fast with list, and tarred rope-yarn. In case of hollowness under the *Seime*, and consequent danger to the gristle or ligament, it is recommended by Gibson to fire with irons moderately heated: of this operation I have had no experience.

CORNS, (p. 208, Vol I.) La Fosse, so attached to sub-divisions, has improved upon Solleysel, by making five instead of three species of *Bleime*: In fact there are two, the natural and accidental; the one occasioned by compression of the hoof itself, in bad feet, with wiry heels and scarcely any binders; the others by that of the shoe, or the intrusion of gravel,

or small stones under it. The preventive remedy is the new style of shoeing. If the bruise appear dry, with no tendency to suppuration, extirpate it by degrees with the knife, or rub in frequently some spirituous application, and nature will in time outgrow the blemish; turpentine and camphorated spirits mixed: should the horse travel tenderly, a light bar-shoe. In case of suppuration, make a small opening for the matter, and stop with pledgets laid one over the other, dipped in the proper digestive, warm. In narrow heels, cut away the horn which presses upon the *bleime*.

GRAVELLING. The intrusion of gravel into the feet, chiefly through the nail-holes; one of the many ill consequences of the common method of shoeing, according to which, the shoes are hollow, and apt to admit and retain the gravel, and the sole pared so thin, that it easily penetrates. The horse halts and desires to go upon his toes, and the hoof is inflamed; but as other accidents, such for instance as a clumsy shoe setting hard upon the heel, may occasion similar signs, suffer not the sole to be cut away rashly, under the idea of searching for gravel: but should there really be gravel, it must needs be drawn out by manual operation, on account of the spiral form of the hoof, which occasions any substance admitted

to work upwards towards the coronet, whence a quittor may arise. This shews very clearly the folly of the old practice of stopping up a gravelled foot by night, and suffering the horse to be travelled on. Having by moderate pinching, found the offending matter, get it all out as clean as possible with the drawing knife. Your success will be known by the disappearance of the blackness; wash and deterge well with warm beer, in which is melted strong soap and salt. Leave the hole rough, and hollowed, larger internally than at the orifice, to the end, that it may better contain the application. Charge as usual. The gravel being all eradicated at a certainty, but by no means else, burning oil of turpentine may be dropped in; afterwards Burgundy pitch, or rosin.

The above method being ineffectual to dislodge the gravel, which may have penetrated deep, and laid long enough to rot the coffin-bone: enlarge the wound, cut away the rotten flesh, and dry and cleanse the bone with a cautery, pointed sugar-loaf-form, as recommended by Bracken. Dress the bone once or twice a day with dossils of lint, dipped in tincture of myrrh-aloes half an ounce; tincture of euphorbium, two drachms. Mix. Cover with green, or precipitate ointment. Poultice the whole foot, if necessary. This method is less

painful and more effectual, than coring out the gravel with sublimate.

BRUISED FRUSH, this happens to fleshy frogs or in running thrushes. Poultice with stale beer grounds, &c. use the knife judiciously. Detergents, repellents, styptics, as before. Our late numerous veterinary writers, copying one from the other, seem totally unacquainted with the natural running thrush, which the most perfect shoeing cannot remedy, and to talk of curing which, by *pressure*, is pure insanity.

RETRAIT, CLOYING, OR PRICKING, WITH NAIL, OR STUB. The two former are old terms. Retrait is when a horse is pricked by the smith, but the error being perceived, the nail is instantly withdrawn. A horse was said to be cloyed, when the whole nail was driven into the quick, and clenched. This latter case, it may be easily conceived, would not remain long unattended to; and in a retrait, although the whole of the nail should have been withdrawn, a tender-footed horse may go a little lame, and such accidents should always be acknowledged by the smith, who may be by no means in fault. Let the horse stand in the stable some days without shoes;

pare the wounded side, and wash the hoof with urine, and if any apparent wound, use the spirituous application.

Any nail, stub, or thorn, having been extracted, to effect which no time ought ever to be lost, wash, dress, and stop, as already directed. Tar and turpentine are frequently used. If from pain and discharge of matter, some remnant may be suspected to remain behind, pare as thin as possible, and introduce a bit of sponge tent, to enlarge the wound, and give room for the extraction of the remnant, with a small pair of forceps, or encourage it to come away by digestion: should this proceeding be ineffectual, and the lameness continue, with a sanious and fetid discharge, use your drawing knife cautiously, and examine the bottom of the wound.

Bartlet says, if a nail be so driven as to wound the tendon, the soal must be drawn, on account of the gleet which will ensue. I must confess myself unprepared to judge of that. He says farther, that should the joint of the foot be penetrated, or a nail pass up to the nut-bone, the case is incurable. It is curious to remark the old applications for drawing out stubs, &c. the sagacious prescribers of which really thought, or seemed to think, their medicaments endowed with the mechanical powers

of the forceps, instead of merely digestive ones; as some old goodies, even now-a-days, bless out thorns.

QUITTOR AND FALSE QUARTER: cause and consequence. A quittor, formerly called by our farriers a quittor-bone, or horny quittor, is the *jarrut* of the French school. It is a hard round lump, or excrescence upon the coronet, between hair and hoof, on one or the other, but usually the inside quarter of the foot. Its cause is the ascent of a foreign body, or morbid material from the bottom, or soal, upward; as a nail, a quantity of gravel, or the extravasated matter of a bruise or corn, which could find no vent below; these forcing their way between the quarter and the coffin-bone, work a passage to the coronet, by destroying the foliated substance, and corrupting all the adjacent parts. This disease may be a considerable time in breeding, to the exquisite torture of the animal, whose wincing, as well as the lump and inflammation upon his coronet, are perhaps totally neglected by the biped his master, until suppuration, and an ulcer of the most stubborn and dangerous kind ensue. I have been describing the **THOROUGH** quittor, of all maladies to which the horse's foot is liable, the most hopeless, if we except the founder; which makes it necessary to caution the reader

against those superficial and palliative methods so confidently recommended. Any thing short of the most radical operation in this case, will endanger the speedy and total loss of the hoof, for which reason no cure can possibly be made without the ill consequence of a FALSE QUARTER, or seam down the hoof, from necessary loss of substance. A horse with this latter defect, may be very sound in slow draft, but I never knew one in my life, that could be depended upon to ride. They are apt to drop down suddenly as if shot. A superficial quittor, originating above, in which the cartilage is untouched, or a mere wound or ulcer in the coronet, is curable by the method already described.

St. Bel compares the horny quittor to the third species of whitlow on the human nail. Bating a little flourish, *à la coutume*, that author is much superior to any in our language, on the cure of this disease; I shall therefore follow him. Probe the ulcer, carefully following the direction of the fistulas, to discover whether the cartilage be affected; but if it should be impossible to judge exactly of the irregular bottoms of the wound, it will be necessary to proceed to the following operations. Reduce the horse's solid food, and give mashies of bran and ground corn, with plenty

of white water. Pare the hoof, rasp the quarter thin near the seat of the operation, and wrap the foot up in an emollient poultice two or three days. Having cast the horse upon plenty of litter, and made a ligature round the pastern, to prevent a flux of blood, an incision is to be made with a bistory or knife, parallel with the coronet, and long enough to discover the cartilage in all its extent. Cut away as much of the upper part of the wall as necessary, but preserve the lower part of the quarter and heel, as a support, if possible; then with the instrument called a sage-leaf, from its form, having a blunt back, and being slightly bent, cut away the cartilage gradually at three or four different attempts. In passing the instrument behind the cartilage, which covers the principal blood-vessels of the foot, as well as the capsular ligament of its articulation with the bone of the coronet, the operator must use the utmost caution, since if he make an accidental opening or breach in those, the horse is lamed for ever. Scrape away lightly with the knife, the remaining fragments of the root of the cartilage, observing to fix the instrument on a solid part, and gently bearing from within outward, to avoid opening the adjoining capsular ligament. When all the cartilage is cleared away, examine the state of the bone of the foot; if cari-

ous, remove the faulty part, and fire, in order to exfoliation. Search the wound carefully to the bottom, to ascertain whether there be any remaining sinus or fistula; and the operation completed, give the first dressing, by applying to the bottom of the wound small pledgets, soaked in a mixture of brandy, vinegar, and turpentine. The dressings must make an equal but sufficient compression on all the surface, and may be finished by laying over the wound, and round the coronet, large pledgets, to avoid compressing the part. The bandage consists of a piece of linen, almost square, and big enough to go round the pastern and the foot, with a roller three ells in length, and two inches broad; lead to the stable, and then take off the ligature from the pastern. Bleed. Febrifugal diet.

The first dressing must remain a week, and then the wound must not be probed for fear of a hemorrhage: The second, five days, when suppuration will have taken place, unless the wound has been too strongly compressed: dress as at first. In a few days the third dressing must come off, and if any black spots appear on the surface, they commonly indicate that there are yet relics of the cartilage; if so remove them. Dress every other day with the same digestive, the cauterized parts excepted, on

which small pledges, dipped in tincture of myrrh aloes, are to be applied. The exfoliation may happen in two weeks, or a month, according to age and constitution.

When the eschar has fallen off, the wound soon fills up; but should any particle of the cartilage or bone remain, and the exfoliation have been imperfect, fresh fistulæ would ensue, and occasion the necessity of a new operation; an inconvenience which I experienced before I had the advantage of reading St. Bel's Book. Probe the black spots, and if needful introduce a sufficiently solid tent, soaked in the above-named tincture, and lightly dusted over with powdered vitriol, or red precipitate, in order to facilitate the desired exfoliation, and consume part of the flesh covering it. When once the wound is sound to the bottom, all danger is at an end, and the trouble is amply recompensed. Run at grass previous to work.

NARROW HEELS, AND BINDING OF THE
HOOF; GROGGINESS AND SURBATING;
THE FOUNDERED FOOT, AND LOSS OF
HOOF.

NARROW HEELS. I have already spoken sufficiently of cases of this kind, and will only

add, that hard, narrow, and wiry heeled horses, of all others, demand the new method of shoeing; and that you had better to avoid vexation, knock your horse on the head at once, than have him shod by a common farrier, who will, conjurer-like, every time of shoeing open the heels; that is to say, cut away the substance which nature has placed there, expressly for the purpose of keeping them open.

GROGGINESS is that stiffness arising from battering of the hoofs on hard ground, or swelling of the legs, and contraction of the sinews. A horse bearing all upon his heels in his trot, is styled groggy, and the defect is generally incurable; at least I have found it so after ten months trial. SURBATING is derived from the *Sobatitura* of the old Italian writers, and means beating of the foot, which ends in a founder. Sudden accidental surbating, or compression by the shoe, will be remedied by timely stable attention. See that Chapter.

The FOOT-FOUNDER is an obstruction or condensation of the humours; and is either acute and from sudden accident, or the consequence of a long series of predisposing causes, many of which have already been noticed. A sudden foot-founder may be occasioned by suppressed perspiration (see Vol. I. Index) or it may associate with the body-founder, or it may

arise from standing constantly tied up in a narrow stall. It is generally in both feet either before or behind, sometimes in all four. There is great inflammation in the parts, and swellings of the veins in the legs; and in the acute founder a symptomatic fever attends. The acute and chronic have been formerly, and by no means improperly distinguished, as the wet and dry founder. By the straining of the muscles of the loins, in order to favour the pained feet, some farriers have supposed the disease to be in the loins; however the symptoms of founder are too obvious to be mistaken. Gervase Markham very aptly compared the sensation of the horse from the foundered foot, to that pricking and shooting experienced by the human animal, from obstructed blood in the foot, when said to be asleep: but the old farriers made a dreadful mistake in gartering up the leg in this case, which must necessarily increase the obstruction, and redouble the tortures of the afflicted beast; in short, the number of similar instances, independently of any other consideration, ought to be an eternal bar to confiding the medical or surgical care of animals to merely mechanical hands.

In thirty years, I do not recollect to have heard a single instance of a foot-founder cured by a farrier, nor have our Veterinarians boasted

much of their success: in a chronic case, no possible good could be done in the house, and it would be madnest to attempt it, or rather something else in him who should undertake it for a fee. All that can be done in the stable is as follows: as soon as convenient, cut the toe until the blood come, and let the hoof bleed awhile; then with the drawing knife make a number of vertical incisions, through the whole foot, from under the coronet almost to the toe, nearly or quite to the quick, without even fearing to touch the cartilages; the feet may be wrapped in emollient poultices a few days, afterwards charge with tar, and powdered olibanum; or pitch and rosin. Afterwards turn the horse off, for six months at least, upon salt pastures in preference, but at any rate, where shelter may be had, and where feed is not too difficult to come at, or the foundered creature may starve either for want, or from cold.

In an acute founder, bleed; allow an opening diet, with saline physic, nitre, and glysters, as in fever and molten-grease. Pare down the crust and thin the soal. Soak the feet and legs thoroughly in warm water, in which bran has been scalded; and afterwards gently rub dry with cloths. Leave the feet all night in poultices of mealy potatoes and scalded bran, mixed

up with oil of turpentine, which may be continued three nights. My reason for advising potatoes, is because I find they retain the heat much longer than any of the usual articles. Prepare the foment, (with or without spirits, or sal ammoniac) or bath for the legs and feet, recommended, Vol. I. (Stable) in which steep them well, keeping the liquor to a constant convenient heat, full half an hour; giving the legs afterwards long continued gentle frictions. Stop the feet with pledgets of tow dipped in the warm mixture of turpentine, linseed oil, and camphorated spirits; and bind the hoofs round with flannel dipped in the same mixture. These measures must be persevered in strictly three times a day, until the condensed and stagnated humours are rendered sufficiently fluid for circulation, when the over-stretched vessels being disburdened of their superfluous contents, may be restored to their proper tone by restringent applications. Walking exercise in the meantime will be beneficial, but it must be in a dry and warm place, and the greatest care taken that the feet be not wetted, and the horse should be led, not ridden. When the inflammation shall have subsided, and the proper feeling of the feet have returned, measures directly opposite to the foregoing must be adapted. Wash the feet in urine and vinegar, first blood-

warm, afterwards cold; bathe the legs with the restringent embrocation, lead abroad daily, and prepare by degrees for the only effectual restoratives, grass, and the dew of heaven. These measures failing, recourse must be had to the operation prescribed in the chronic case. The old farriers, and St. Bel after them, remarked that a foundered horse, by way of easing the tension and pain in his legs and feet, would place himself upon his back. Would it not promote the reflux of the stagnant humours to continue the horse in that posture half an hour a day, upon a soft bed, extending and fastening up his four legs, in such sort, that the ligature did not impede the course of the blood? I hope the ladies will pardon the comparison, but I suppose I caught this idea from the memoirs either of Mrs. Bellamy, or Mrs. Anne Sheldon; one of whom laid all night with her hands tied up above her head, in order, by draining them of blood, to make them delicately white.

It has, I believe, been the general practice of the farriers, to pare the sole of the foundered foot thin, and charge it with pitch and tallow, or some such combustibles, boiling hot; precisely so was the patient served, in the case which I have already quoted, and it appeared to me to confirm the founder. The method I have laid down, I have always seen successful

in analogous cases, but as I differ in a material point, as well from our own writers as from Professor St. Bel, who has treated this disease more at large, I must beg leave to refer the enquirer thither. Contrary to a principle laid down elsewhere by himself, in a case of fluxion, inflammation, and tension, when, speaking of astringents and repellents, he says, “they fix the humour in the part, and coagulate it, constrict the vessels, check the circulation, and at length occasion induration, the effect of the concretion of the fluids.”—He orders a foundered and feverish foot to be soaked an hour in a cold bath, in which have been infused the most powerful repellents and astringents. This practice I well know has been derived from ancient authority, and is prescribed by Petrus Crescentius and others, but that, and even the consideration that such method has ever since prevailed in the continental schools, is no absolute proof of its rectitude; and for my own part, I must confess I should as soon think of applying a snow-ball by way of poultice to a feverish head. I must entreat the reader not to misunderstand me; I do not pretend to dogmatize upon this point, I am only submitting my opinion to the correction of professional men. I have repeatedly seen very ill effects from even moderate coolers and

repellents, applied to hot and surbated feet. See p. 304, for the use of warmth, and relaxents to the opthalmic eye, an analogous case with respect to inflammation and a turgescency of the vessels; but much depends on the constitution of the patient.

When from any accident the whole hoof shall become loose, so as to indicate an entire parting from the bone, prepare a pliable leathern boot with a strong sole, fitted to the foot, to be laced around the pastern. The boot to be bolstered and stopped with soft flax or tow, that the horse may tread as easy as possible, and the stopping to be daily renewed. Dress with wound ointment, in which is mixed myrrh, mastich, and olibanum, very finely powdered. In case of fungus; precipitate, sublimate water, &c. Should the coffin be sound, a good new hoof will be produced; but it must be noted, the old hoof will fall spontaneously, and ought by no means to be removed by violence, or the knife; unless indeed when it may compress the new.

Captain Raymond of the West, informed me, that he had a case of a strong convex, or pomiced foot. He cut away boldly, but by degrees, until he came to a mass of extravasated blood, which being discharged, the foot recovered its shape and use. I have had seve-

ral cart horses in this way. It is a misery to see them labour with any form of a shoe, and I think, if there be any hope in the case, generally it must arise from a run abroad only.

LAMENESS FROM RELAXED OR CONTRACTED SINEWS.

The usual seats of these lamenesses in horses, are the KNEE-JOINTS; the BACK-SINEWS, or *Tendo Achilles*; the PASTERNS, and COFFIN-JOINTS; the LOINS, or COUPLINGS; the HIP, or WHIRL-BONE; the STIFLE, and HOCK.

Alternate extension and contraction, or elasticity, seem to be the grand source, or medium of motion, in all animated bodies; the muscular, tendinous, and nervous fibres, the ligaments of the joints, the muscles themselves, and their appendages the tendons, are all endowed with their appropriate portion of this elastic power. The animal fibre I suppose to be in its perfect state, when its powers of extension and retraction are exactly equal; this aptitude for its proper functions, is injured in various degrees, by those causes which produce inordinate contraction or relaxation, namely, heat and dessiccation, or overstretching, attended with a flux of

moisture. Nothing can be more apt than the analogy so often adduced upon this occasion, of a piece of catgut, which if it become too dry, instead of stretching will break; or if wetted, or overstrained, loses in degree, or perhaps for ever, its elasticity or contractile power.

Generally, it is the property of heat to expand and loosen, and of cold, to contract or draw into a narrower compass. (See Brisson's *Physical Principles of Chemistry*.) But the same physical causes, and the same medical applications, will, sometimes, dependent on certain contingencies, produce directly opposite to their general effects: all the phenomena, nevertheless, invariably combine to prove the susceptibility of impression, or irritability of the living animal fibre, whether in its individual or aggregated state. Themison held, that "adstriction, contraction, and relaxation, or a proportion of the three, are the cause and cure of all diseases;" and he was not far from the truth.

Bracken and Osmer are the proper authorities to be consulted on lameness of the tendons, since they were practically acquainted with that description, among which the malady is most frequent, namely race-horses. It is laughable enough to read Burdon on the subject;

A certain gentleman who has lately written upon medical errors, after fifty years practice, not only recommends to expose the body to cold air during the operation of a purge, but even answers for the innocence of the cold-bath at that time.

A tendon being endowed with the muscular power of contraction and dilatation (which I have instanced, because Osmer pretends to argue from its loose uncontracted figure) or rather such being its natural offices, must of course be liable to injury from excess in either of these, and the injury must consequently produce a defect of elasticity; nor does that necessarily presuppose elongation, since there is a species of elasticity not at all connected with elongation, for instance, that of whale-bone and wood. But I neither assert that the tendons of horses are elongated by a strain, nor grant its impossibility: the main tendons may be secured from that by their position, and when we see a race-horse which is broken down, with his fetlock nearly upon the ground, it may be probably the ligaments and fibres only which are lengthened, and yet, with equal probability, the tendons themselves may be elongated in their appportionate degree; that they become softened, and lose part of their tenseness and contractile force, under these circumstances,

any one may discover who has feeling in his fingers ; and this is all which is contended for.

Strains are of various degrees, and necessary to be distinguished, whether acute and recent, or chronic, and of long standing ; and in cases of inferior concern, the fibres only are affected, and that perhaps merely by inflammation, as when we see the leg of a young horse swelled and painful after work ; or the fibres may be relaxed, or some of them even ruptured, by a sudden strain ; the strain may happen to the ligaments, or tyers of the joints ; and lastly, when the force of the strain is very great, and in case of repeated and accumulated injuries to the tendons themselves, the animal fibre may gradually lose a portion of its elasticity, which can then only be restored as it was lost, by gradual means ; a truth of the utmost importance : when the injuries have been frequent, the restorative means too long neglected, or the spring too much weakened, no perfect reinstatement of it need ever be looked for.

The proper means of restoring the tone, or spring of relaxed animal threads, are by rest, and abatement of the stress upon them ; by assuaging the inflammation, and promoting the absorption of the concomitant flux of humour, with poultices, partly emollient and partly restraining, and after the tension shall have sub-

sided, by the application of bandage to the loosened parts, and of those rough and austere substances which are known to possess the power of bracing or drawing parts together; lastly, by the actual cautery, or fire: after these, or in conjunction with these, in horses, the parts ought to be exposed, during a certain period, to the bracing influence of the atmosphere; in the human animal, to that of water, or the temperate or cold bath.

I am not ignorant that instead of retaining the antiquated words, bracers and astringents, I might have adopted a more fashionable term from the Darwinian nomenclature, but I must be bold to say, that I am averse to change unattended with actual improvement, whether in morals, politics, or medicine; and I humbly conceive there is neither improvement nor correctness in the substitution of the word *Sorbentia*, since many of the proper *sorbentia* are relaxent, and many astringents cannot properly be called absorbent, although it be true that their secondary effect is to promote absorption. There appears to me a want of discrimination running throughout the whole Brunonian system. The doctor's assertion (Vol. II. p. 735) that bracers and tonics are mechanical terms, not applicable to the living bodies of animals, may, I think, be experimentally confuted and

overthrown by holding a glass of rough Port wine in the mouth, or the application of cold water to the relaxed scrotum. Bracers act first by their power of contracting, or drawing parts together, from which it follows that the contained fluids are propelled, and their absorption is promoted. To make use of the term *Sorbentia* in this mode, seems to me an adoption of the figure *Hysteron Proteron*, or the setting the cart to draw the horse. Let me once more apologize for stating my objections to particular parts of that monument of genius, human learning, and medical research, the *Zoonomia*: I should hold myself doing any man the greater honour, by speaking my mind freely in his presence. And honestly to deliver the *verum de mortuis*, perhaps Darwin's poetical, will be rated higher by posterity, than his physiological and medical talents.

In these maladies it is, obviously the most frequent and dangerous of all others which afflict the horse, in a country so devoted to speedy travelling, that, in my opinion, our new veterinary school proves most defective. The affectation of gratuitously and implicitly supporting the unnatural hypothesis of fibrous inelasticity, has stifled inquiry, and led to the most dangerous deceptions. The general want of skill in mere anatomisis, to detect the seat of lameness

in horses, is notorious; and the fashionable idea that strains consist of nothing but inflammation and effusion, is most futile. If so, of what nature is that lameness which remains after all traces of inflammation have vanished, and to speak technically, the sinews have regained their original fineness? Every practical man will recognize this as a general case. Mr. Blaine, as might be well expected, must be "up to the height of the mode," and nothing can be more laughably affected, than his fashionable substitutes of *muscular extension*, *extension of the shoulder*, *violence done to the sheath of the tendons*, and his "*strains, as the farriers call them!*" If he really have any meaning on the subject, of which my doubt is considerable, does not he intend by extension, improper elongation? and does he not prescribe, in the case, those medicines which we old-fashioned and vulgar folk call bracers, or astringents, with the view of reducing elongation, or bringing parts into a nearer contact, in order to strengthen or consolidate them? And what is all this, but the completest acknowledgement of those physiological phenomena, the *strictum* and the *laxum*? What reader of the homespun order of common sense, but must smile, at the extreme caution in page 647, least the words bracers or astringents, prompted by na-

ture, might inadvertently slip out. Mr. Blaine supposes, that generally, a lesion of fibres is more probable than an extension or relaxation: an idea totally unphilosophical, and which, if true, would render every muscular exertion most precarious: the animal thread, from its necessary ductility, must ever be more liable to over-strain than to rupture.

How often do we see an old broken-down racer, after having finished his course, limping towards the stables, with his fetlock joints nearly in contact with the ground; and yet, by the help of bandage and astringents, within twenty-four hours, as straight and erect upon his legs, as if he were become perfectly sound? Again, how common is it in the stud, for a foal to be dropped in so weak a state, that its fetlocks are bent to the earth, nevertheless, in four or five days, the parts shall gradually contract, and the animal become upright. Can there be a clearer proof of the ductility and elasticity of the animal fibre, and that the physical and medical terms *relaxation* and *bracing* are perfectly correct and legitimate?

In the cure of strains, Mr. Blaine has adopted my favourite practice of dispersing the inflammation, and reducing the tension, previously to the exhibition of strong astringents. However, there are eminent men, at this day, of a con-

trary opinion, and who, in cases of *external* inflammation, immediately apply the most powerful repellents. Such practice, no doubt, occasionally succeeds, but I have witnessed violent and dangerous effects therefrom, and, viewed in a general light, it is no doubt erroneous. Mr. Blaine, systematically inconsistent, says, page 644, "farriers have considered these parts as merely relaxed in these cases, and hence requiring what they deem bracers only as necessary to a cure, which applications have generally produced a greater deposit of coagulable lymph, obstructing the motion of the part, and *rendering the lameness permanent.*" Here he has totally forgotten, that he himself is guilty of precisely the same error (which I also noticed in St. Bel) adopting the strongest bracing and astringent practice, in the acute founder, (page 705) a case of fluxion, inflammation, and tension of the vessels, in which case and practice I have, more than once, seen the result of *permanent lameness.*

Whence comes it, that Mr. Blaine, so ready to question me on the most trifling and even ridiculous topics—barbs and fat!! preserves a total silence to the arguments I have advanced on this most important of all veterinary subjects? It is my purpose to be more complacent to Mr. Blaine. Let us then see, with

what degree of truth and congruity, he has supported his adopted child—the inelasticity of tendons. Vol. II. p. 644, nature has given “*absolute inelasticity to the tendons*, which are but the ropes of the muscles, or like the string to the bow.” Imprimis—where are those ropes and bow-strings which are not elastic, or, which is more to the present purpose, are not relaxed and elongated by heat, and contracted and consolidated by its opposite?—Vol. I. p. 240, we are taught on the other hand, how “the flexor tendons are put too much upon the stretch, and in time become strained and defective.—Same volume, page 400, he warns us “of the great degree of distension even tendinous parts are enabled to recover, which, as usually described, are perfectly inelastic: yet in pregnancy *both muscles and tendons become amazingly distended*, but on delivery soon regain their former size and extent. Thus in Mr. Blaine’s first volume, tendons are completely elastic, in his second, absolutely inelastic; but we must not be too severe; between the writing his first and second volume, he had leisure to complete his reading, and make up his mind.

Mr. Everard Home has lately proved, beyond all question, the irritability of nervous fibres, from an accurate observation of the

phrenic nerve of a horse ; and the experiment exactly confirms Bracken's opinion. Both the nerves and tendons have been for a considerable number of years generally supposed totally inelastic, and, from the prevalence of such erroneous ideas in our surgeons, as well as from the ignorance of farriers, I apprehend, it has arisen, that so many horse-cases have been merely palliated and quacked, or the animals prematurely and incurably lamed.

Within these few weeks, (1804), in the hundreds of Essex, I have witnessed the old miserable ignorance of putting a patten-shoe on the sound foot, in a case of the most palpable debility, requiring every possible alleviation from weight or labour. In my many conversations with old Snape, who had most probably put on hundreds of patten-shoes, I could never discover that he had any correct ideas of their use. It was simply—oh! turn him off with a patten-shoe. The whole virtue was lodged in the shoe, not in the rationality of the thing ; the light precisely, in which people generally view *a receipt*, as it is called, for a cure, one of the most superlative vehicles of folly and deception, and by which even people of education, who have not turned their attention to the philosophy of medicine, are frequently gulled. I had last year a hackney

mare shewn me, which had worked some years, and in the back sinews of which, according to my ideas, heads and fingers endowed with a moderate portion of sense and feeling must inevitably discover a most sufficient cause of lameness: but the farrier, who had been forty years in business, finding little heat and no tension in the legs, declared the mare sound in those parts, and that the lameness was in her feet, and would be mended by work! Her feet were however in a very good state, and the mare, a favourite, has proved to be incurable, obviously, I think, from want of early attention and runs abroad—the only dependence.

Farther extracts from my Memoranda. In September 1804, a farrier of long established reputation, and one who pretended to have valuable specifics, had travelled his horse in single harness, about a dozen miles. I perceived the nag lame, and on making inquiry, the Doctor replied, Yes, the horse had indeed been lamed in the shoulder, but had been rowelled and cured, had been purged twice, and that another dose of physic was intended; but the horse went stiff and tender from the rowel. The horse being stopped, put out his leg in an instant, and told his own tale. Feeling around the pastern joint and along the ten-

don, with fingers long practised in the case, I could perceive a real cause of lameness, as plainly as skin, bone, and tendon, but had not the same success in convincing the Doctor, or even in making myself understood. His whole conviction seemed to consist in the certainty of completing the cure of his horse's lameness, with the next dose of physic.

In May 1805, a respectable friend of mine, a Member of Parliament, purchased a six year old gelding, for seventy guineas. I observed the toe of the near fore foot turned in, and the joint crooked, I suspected the nag would fail in that part first; in short, I thought I could perceive incipient debility, which opinion I communicated. Some time after, the nag fell lame. He had a splent on the other fore leg, but in nowise interfering with the sinews, and the leg discovered no sign of unsoundness. But the near, and really lame leg, having little or no tension or inflammation, at least to their feeling, neither groom nor farrier could discover the seat of lameness, but agreed to lay the blame upon the splent of the off leg. The horse was now exposed to sale, and the gentleman about to become a purchaser, gave him a rattling gallop over the road, with the intent of trying his soundness. The horse pulled up dead lame, *marked* his near foot, the joint be-

came inflamed and enlarged, and both farrier and groom were convinced.

January 1806, the gelding which had been cured of the thoroughpin (p. 355) became lame. The defect appeared to me very obvious in the near pastern joint; indeed, I had for some time perceived debility in that part, and directed the attention of the farrier to it, who, however, insisted the lameness was in the foot. The horse, as usual in such case, was lame and apparently sound, alternately, until at length it appeared proper to turn him off. He came up after a summer's run, somewhat fresh, but to me, the old lameness was still too visible; to the groom and farrier the horse was sound, at any rate, not lame in the part which I pointed out. A little work soon decided that he was a lame horse. A veterinary surgeon of note was now called in, and he pronounced the horse lame in the joint, yet ordered the feet to be soaked in warm water, to *dilate* them, and bleeding at the toe. The groom now said, that the surgeon could really discover no lameness in the pastern joint, and that if he pronounced the joint faulty, it was merely because he (the groom) had hinted that from me. So both farrier, (and he was an eminent one) and groom, persisted still, that the lameness was really in the foot, which to appearance evinced perfect

soundness, whilst the joint, to my apprehension, demonstrated the plainest symptoms of disease. The nature and symptoms of these cases, appear to me to be yet very imperfectly understood. And among grooms and farriers particularly, the *hobby-horsical* lamenesses seem verging from the shoulders, their ancient seat, to the feet.

Mr. Blaine has, with much good sense and feeling, reprobated the cruel insanity of attempting to work lame horses sound, but alas! his reasoning is very ill calculated to enlighten on that head. I speak from personal feeling, as well as the constant habit of examining the limbs of horses, throughout half my life, and I well know, that nothing is more common, than ligamentary and tendinous lameness, from the debility induced by laxity merely, unattended with tension or material inflammation. But the most apt analogy in the case, is that of the generally relaxed habit, in which the unfortunate patient feels but too plainly a flabby looseness and want of contractile force, in every muscle, tendon, ligament, and fibre of his body; and all this without the aid of ruptured *theca*, or sheaths, and extravasated mucus; although these last are doubtless also accidents of common occurrence, as Osmer long since taught. Nothing, again, can be more appropriate, or

more forcibly illustrative of the grand fundamental doctrines of constriction and relaxation, than the citation made by Blaine, (Vol. II. p. 264) of John Hunter's opinion respecting the contraction of the cremaster muscle, in the human and other animals, as the most unerring mark of strength and full health. Nevertheless, relaxation is an idea of the old school, now exploded, and ridiculed by an Irish doctor of high repute, who cures debility with the warm bath! See Medical Journal. Another eminent Brunonian strongly recommends heat, as the grand specific in the cure of fever, with the potential aid of the warmest stimulant medicines; and above all things, the most salutary stimulus of thundering rat-tats at the door, to relieve the torpor of the patient! for it seems, tying up the knocker is an old-fashioned and improper practice. These, however, are trifling *new discoveries*, compared with what we find in the American Philosophical Transactions, where the celebrated Dr. Rush makes the black colour of the negroes a disease, and curable by medical art! The faculty have written much of late about quacks: I would beg to know where greater quacks could possibly be found, than have ever existed in their own body?—a profession yet, which has, and does contain,

some of the most learned, most enlightened, and most liberal of the human race. The writings of such have been my instructors, and my solace throughout life; nevertheless, as far as my very limited knowledge and experience extend, I cannot withhold my assent from the position of the learned and sagacious Batavian Dr. Ontyd, in his *Influence of Chemistry on the Operations of Animal Bodies*, that “the majority of the numerous new theories, and new modes of practice, are found by experience to merit our contempt.”

As to the method of cure, I shall begin with a clap in the back sinews, the most common accident; the signs of which are described, Vol. I. (Defects) as also is the remedy in a slight case, or mere inflammation, in a former page, of the present Volume. The seat of the complaint being well ascertained from the motions of the horse, and the heat and tension at the back part of his leg, put him immediately by himself in a loose stable, and bleed him, giving mashes and salts. Foment the leg twice a day, in the bath already advised, with the addition of spirits or vinegar, but should the herbs not be within reach, substitute warm water and skim milk. Should that not succeed, poultice. The inflammation having subsided, use the restraining embrocation twice a day; suffer no one to

ride the horse. Judge from your observance of the cause, from the symptoms, and the action of the horse, whether it were a sudden accident; convinced of that, and no farther appearance of the ailment, he may be brought moderately to his work. If an old affair, no sudden appearance of soundness ought to be an inducement to work a horse a single hour previous to a three month's run at grass, because such unthrifty conduct ensures relapse, and aggravation of the complaint beyond all remedy. Let no one listen to the pretended specifics of silly grooms in this case, which are to effect a cure in a few days; those doctors suppose the business ended, as soon as the inflammation has subsided, whereas that criterion only marks the commencement of the cure.

It is proper here to say a few words concerning the form of embrocation which I have recommended on my own experience; as no man is more fond than myself of quoting the *nullius in verba*, it would be absurd indeed for me to desire any one to pin his faith upon my sleeve; I shall, therefore, bye and bye, submit other forms to the reader's choice. I have found the mixture in question to succeed well, not only with the sinews of horses, but being proportionably reduced in strength with

those of human creatures also ; and from many years experience upon my own person particularly, I can recommend it in either recent or old strains. Infuse eighteen drops of Goulard's Extract in one, two, or three ounces of distilled vinegar, according to the strength required. My usual rule is to allow as much of the Goulard, as will produce a head, somewhat similar to that upon common glass-proof brandy. In a sense of coldness or numbness of the part, add two tea spoonsfull of camphorated spirit. Mix. Should too much heat ensue after the use of the embrocation, immerse in, or dash with cold water. An astringent charge, to speak in the language of the stable, is often of considerable use and comfort. In the year 1790, I relaxed the ligaments of my shoulder, which I cured in about three months, by suspending the arm, bandaging the part, causing cold water to be poured upon it every morning, and the constant use of the embrocation. About three years afterwards I accidentally strained the parts again, when the injury became incurable ; only as it is occasionally braced and palliated by the above mixture.

In the Chapter on Diseases of the Eyes, I have spoken on the abuse of restringents, particularly Goulard's Extract, and other prepa-

rations of lead. It is a long time since I saw Goulard's Essay on Lead, but I believe he directed his Extract never to be used undiluted with water, for want of which observance I have committed several disagreeable errors, both with myself and others. A young person once applied to me with a slight strain in the foot in which I raised a most violent inflammation and contraction, producing absolute lameness, by causing the part to be embrocated with a mixture of vinegar, spirits, and Goulard undiluted, although the quantity of the latter was by no means large: The same thing happened to myself several times, and I was sufficiently sensible of that heavy benumbing pain in the very marrow of the bone, which I have heard described as the usual effect of lead, by those who labour in the manufactories. In horse cases, I have often found by the rigid and inflamed state of the parts, that I have been bracing too fast, and my usual method is to order cold water a few times, as a substitute for the embrocation. I have many times drawn up the lax sinews in the course of a few days, and made the horse to all appearance sound; but the first ride has convinced me of the inutility of those premature measures, by the return of the horse as lame, and his sinews as loose as at first. In

most cases, our medicines by no means want efficacy, but we ourselves want patience; not stopping to consider the absolute necessity of the healing and consolidating balsam of time. If restringents are too violent, even when the parts are cool, they contract the fibres too suddenly, whence necessarily ensues a re-action, with increased debility; the fluids also are pushed forward too fast for the capacity of the absorbents, which produces inflammation, tension, and increase of the disease; how dangerous then must be the effect of powerful bracers upon nervous and tendinous parts, yet in a state of inflammation from recent injury? And yet such application is a common practice. The reader will observe, that I have since found vinegar will sufficiently reduce the Goulard's Extract; but there certainly may be cases, in which water also may be necessary.

I must acknowledge that I am by no means prepared to give a decided opinion on the subject of firing, or the application of the actual cautery in strains; the truth is, I have had few horses fired, and with those few it did not succeed. Its use is said to be, to discuss swellings by promoting absorption; and in contracting the skin to form a constant bandage around the sinews, both during the cure, and ever afterwards. What strikes me as the

most important benefit in the measure is, the support it is said to give to the parts after the cure. The necessary precautions respecting the operation upon the back sinews are, that the parts to be fired be not in a state of inflammation, that no cross lines be made on any account, that the fire be only given deep enough to have sufficient effect upon the skin, without burning the sheaths of the tendons, that no person be suffered to mount the horse, but that he be turned to grass, as soon as convenient, for at least three months. The wind-galls, I think, should be opened previously to firing. When the operation is intended to be very effectual, the lines are drawn thick around the leg, from the bottom of the pasterns almost up to the knee. I should conceive that fewer lines would make a firmer bandage. I must remark also, that a man's common sense must naturally depict the operation of cauterizing as a very delicate one, and by no means within the power of every heavy-handed smith.

When the pastern joints are exceedingly full and swelled, the legs gorged, the tendons enlarged, in fact, the parts indurated, there seems an almost absolute necessity for blistering and firing, since no other measures will be sufficiently discutient; however, when it shall be again my lot to have another case of this

kind in hand, in addition to the number with which I have been plagued, I mean to depend on blistering, to discharge the coagulated humour, without firing; and to conduct a curative process abroad. After the blistering course, as long as may be needful; that which I have already styled the actual bracer, or a firm bandage, so fastened that the tendon may not be pressed downward, to support it whilst the horse walks about. Embrocation to be used every night in the field, at least once a day, the horse being accustomed to come for a few handfuls of corn; to be continued two or three months. It is unnecessary to remark, that the horse had need be valuable, and the owner to possess a few sparks of laudable equestrian enthusiasm, to render all this trouble worth while; however I can almost warrant it would pay well in the case of race-horses, few of which but must be shortened in their speed, if fired to any effectual purpose of bracing; and after all, I can scarcely think but that a force sufficient again to start the tendon, must also be adequate to loosen or burst the bandage.

With *Contracted Sinews* (to which post-horses are particularly subject) the legs are hot and gorged, and the joints indurated; the horse steps short, and is liable to drop down on a sudden,

especially in his walk. If there be any effectual remedy, it is repeated blistering, and six months grass. As to palliatives within doors—brandy and linseed oil, for a liniment. Daily warm emollient fomentations, be they only bran and water. A liniment of goose grease, and spirits doubly camphorated. Or. Black soap, one pound; old beer, one quart; neat's foot oil, full half a pint; seethe over the fire, and when cool, add camphorated spirits, half a pint; use this warm.

PASTER-N-JOINT wrung, or strained by accident; fomentation, anodyne poultice, embrocation, bandage long continued. Markham says, in a wrench of this joint, there will be swelling and tenderness upon the joints of the shoulder, or withers. In strains of the knee-joints, whether in horses or the human species, I have observed the *extensor* tendon affected, and pained at the bottom of the leg.

COMPRESSION OF THE NUT-BONE, between the coronary bone and the tendon, and strains in the COFFIN-JOINT. The signs, swelling and great pain in the coronet, heat in the foot, stiffness in the joint, and setting the toe only upon the ground. Pare the sole, and bleed the foot as in a founder; the same after treatment as above. It ought by no means to be forgotten, that strains in these lower joints

neglected become perfectly incurable; dislocation, *anchylosis*, or immobility of the joint taking place. Drawing the sole, of which I have spoken before, is sometimes resorted to in this case. I have of late, for the first time in my life, heard of a solitary instance of success in this torturing operation, without, however, having had ocular proof. I think all men of feeling should set their faces against it, since it is well known how often it has been recommended and performed, merely to promote business. Snape, Gibson, Burdon, Osmer, Wood, and all our ablest practical men, were entirely against it. Wood, Burdon, and others, assert, that there is no hurt in the cask of the foot, which may not be come at without the aid of this desperate measure. St. Bel directed to draw the sole on a very slight occasion, which I formerly remarked in a certain small tract; but in a founder, where it would be dangerous to unsole, that author advises to make an opening by cutting away about two finger's breadth at the top and front of the hoof, beneath the coronet, which was also Snape's and Gibson's practice. I believe I omitted to mention this small operation before; it may perhaps answer in several cases.

Strains in the SHOULDERS are much less frequent than in the nether limbs; as to the

symptoms, there is generally a *deceptio visus*, all lame horses appearing affected in the shoulders, however sound those parts may be, which is the occasion of the perpetual blunder of grooms and farriers, whose sole rule of judgment is from appearances and custom. The only sign to be depended upon within my knowledge, is the motion of the fore-arm already adverted to, or tenderness and tumour in the parts. The muscles or ligaments of the shoulder, may be relaxed, or even a dislocation may possibly, but not very probably happen; contusion and stunting of the point of the shoulder may ensue, from running against any hard body; and lastly, notwithstanding the merriment of Osmer, a horse may be really *shook in the shoulders*, of which I have been too often convinced. This last is a disease of inflammation and contraction, analogous with surbating and the foot founder, and to be removed, when curable, by rowels and running abroad. For a dislocation, swimming is generally recommended, or reduction of the joints by extension and counter-extension (the inflammation being previously allayed by relaxent applications) under the care of an able veterinary surgeon; afterwards bandage, astringents, and long rest.

For strains in the LOINS or COUPLINGS, Bracken advises the following charge; pitch and rosin, each four ounces; turpentine, three ounces. Mix. Pour it upon the parts warm, and cover the fillets all over with tow or hurds. I have no great opinion of the efficacy of this charge, unless a strengthening embrocation could be also poured upon, and soaked into the parts twice a day; and after all, if the affair be serious or of long standing, no in-door measure will succeed. If only a slight strain, no labour of any kind, during the cure.

In lameness of the HIP, or WHIRLBONE, the leading symptoms are, swinging of the limb, or its being longer than natural; when the horse trots, he drops backward upon the heel; in general, perhaps, not going very lame, on which account the disease is neglected, until it becomes incurable. A slight affection of the muscles and ligaments, is cured by the proper restraining applications, with time and rest. Where the whirlbone, or hip is beat down from its socket, it will so remain, and yet, perhaps, the horse may do considerable service. Hipped horses have even raced. The cure is generally blistering, firing, astringents, and rest; but Osmer asserts the inutility of firing in this case, on account of the strong muscles intervening between the skin and the ligaments. In

blistering he directs a broad piece of cloth to be kept upon the adjacent part of the horse's flank, to guard it from inflammation. If you rowel upon the thigh, beware of the ligaments.

Of the STIFLE-BONE, upon the thigh-bone, similar to the small cramp-bone in a leg of mutton. (Vol. I. Defects.) Usual treatment for strains, and rest. Parts being swelled, foment, making use of crude sal ammoniac and wood-ashes. The tumour will sometimes suppurate, but seldom, which soon perfects the cure. Should a rowel be necessary, any convenient part will do. The accident taken in time, and properly treated, is by no means dangerous.

STRAINS IN THE HOCKS. Sickle-hammed horses, whilst young, are subject to these strains, seldom with any other external sign than heat in the parts and lameness. Rest, restringents, moderate labour. In case of tension, or callosity; fomentations, blisters, firing with small, superficial, and rather close lines; charge afterwards with mercurial plaister, and that DE CIRCUTA CUM AMMONIACO, melted together, renewing once or twice as it drops off. The joints of the hocks being much enlarged, Osmer recommends the cataplasin of salt (see farther) twice a day, and fomentations, with

bleeding and cooling internals, rejecting blisters and firing.

The absolute division, or rupture of the main TENDON, is remedied, by bringing the divided extremities into exact contact, by compressing and securing them in that state, and by binding the fetlock with a splent externally applied, that the foot, having lost the stay of the tendon, may not turn outwards to impede the union of the ruptured parts. The usual cooling and restringent remedies. St. Bel asserts, that such a rupture is never perfectly cured without drawing the sole: We do not find that to be exactly the case in England, and I should conceive the tenderness of a new sole to be the worse alternative. Would not Osmer's method of an incision under the part affected (p. 415) be particularly useful in this case? The old farriers directed to divide the sinew with the shears, when ruptured, but not thoroughly, which produces convulsions; after, a charge of turpentine, Burgundy pitch, and *Sanguis Draconis*, applied hot.

The fracture of the leg or thigh-bone, in cattle, was held by no means incurable, or even very difficult of cure, by *Datagliacozzo*, *Ruini*, and the old veterinary anatomists, as *Solleysel* assures us; far less ought it to be so in the present times. The cure is performed in the

common mode of splent and bandage, and the usual dressing; the horse or beast being left in a large outhouse, or dry field, where he will make a good shift with three legs. This is probably full as well as slinging with canvas and ropes; directions, and a plate of which, may be seen in the last edition of Bartlet's *Pharmacopœia*.

The only practicable method of reducing dislocations in the joints of cattle, is to cast the animal upon his back on a soft bed, and draw up his four legs with pulleys; the displaced joint ought then to be extended, with all possible tenderness and care, duly replaced, and bound.

The general cause of those frequent strains in the back sinews, to which horses in England are peculiarly liable, is our custom of hard riding; but the extent of the mischief may be considerably reduced, by the improved method of shocing, which restores to the *flexor* tendons, or main sinews, the intire frog, intended by nature as their cushion and support. I have, however, formerly put the case somewhat too strongly, in my attempted illustration, since, even when the frog does not touch the ground, it is still a partial support to the tendon, although not so firm a one, as if it occasionally touched, or rested on the ground. An idea has

of late years been propagated, that the chief use of the frog is by no means the support of the tendon, but rather as a medium of expansion to the hoof; a most inconsequential theory, in every point of view. That, from its position, the frog must serve both purposes, is equally true and obvious; nevertheless, its chief function seems to be precisely that which was originally assigned to it by *La Fosse*. In the meantime, no one has denied that the *fleuror* tendon has other supports, of which, in truth, nobody could be ignorant, who had either viewed, or read a description of the internal structure of the horse's foot.

Mr. Blaine's everlasting penchant for new discoveries absolutely throws a burlesque over many of his subjects, and here, gravity herself cannot withhold a smile. *Par exemple*; who, that had ever a horse's foot in his hand, yet doubted the pliability and elasticity of the horny sole? By consequence it required much the same kind of proof that "the sole descends by the pressure of the internal parts" as is necessary to ascertain the amount of two and two. The general elasticity of the contents of the hoof, the descent of the sole, at every tread, and the infracumbent situation of the frog, tend not barely to elucidate, but clearly to demonstrate the position, that one important function

of the latter is to act as a cushion, stay, and salient point. From numerous passages in this author, a reader, unacquainted with the subject, would be led to suppose that the utility of an occasional, or constant support in the frog (the term *pressure* has been too freely used) of thinness at heel, flatness, lightness, and solidity in the horse's shoe were late, as they are most truly important discoveries. In stating the consequence of low shoe-heels, namely lameness, "by putting the tendons to the stretch," Mr. Blaine, from want of experience, was not aware of an equally great, and perhaps more permanent objection: but it is a strange inadvertence in him indeed, to suppose that those whose practice it has been to reduce the frog, have so done with a view to its preservation, as a cushion to the tendon: in truth, practitioners of that stamp have never fatigued their sage brains with any useless speculations on the matter; but viewing the frog as one of nature's bastard and frolicsome productions, a mere horny excrescence, have ever taken especial care to extirpate, as fast as she could produce it; and that centuries before the theory of the frog's use was generally known. It is laughable enough to read Blaine's long-winded account of this man's shoes, and that man's shoes! He would, with equal use, have given us a list of those

When the back sinews are considerably let down, and the frog will not touch the ground, it is of great use to turn the horse off in a light bar-shoe, the bar resting upon the ground, and supporting the frog and the tendon.

VARIOUS FORMS OF EMBROCATION FOR STRAINS. Best vinegar, one pint; camphorated spirit, four ounces; white vitriol dissolved in a little water, two drachms; mix. Or. Vinegar, one pint; camphorated spirit, and spirit of vitriol, two ounces each; mix.

Take distilled vinegar, eight ounces; dissolve therein, one ounce Castile soap; add half an ounce sal ammoniac. Or. Sugar of lead, alum, and white vitriol, one drachm each; powder and dissolve them in four ounces tincture of roses, and two of japan earth. This is powerfully astringent.

Take the whites of three or four eggs, beat them to froth, add roch allum, finely powdered, one ounce; spirits of wine camphorated, and of turpentine, half an ounce each, mix.

An OPODELDOC, discutient and bracing. Spirits of wine, two pints; Spanish soap, five ounces; digest in a gentle heat until the soap be dissolved, then add camphor one ounce; oil of origanum, one ounce. The quantities of camphor and origanum may be increased upon occasion.

Oil of turpentine, one ounce; spirit of wine
aphorated, two ounces. This from Bracken,
I find if constantly used, the turpentine
comes off the hair; perhaps the addition of a
little Barbadoes tar might prevent that effect;
which, in fact, will be changing the turpentine
into oil of spike.

For enlarged, and inflamed, and weakened
tendons from Osmer. Foment twice a day
with decoction of white lily roots, mallows, elder-
flowers and flowers, bay-leaves, &c. Make a
plaster for the parts, of the fomentation thick-
ened with meal. The tension subsided, apply
once a day the SALT CATAPLASM; or, com-
mon salt, whites of eggs, vinegar, and oat-
meal, using also astringent mixtures. OR.
Make two incisions through the skin below
the diseased part, being careful not to wound
the fibres, or sheath of the tendon, apply as
above, and keep the wound running. This I
have never tried.

CHAP. X.

TUMOURS—WOUNDS—ULCERS; WITH THE
PROPER EXTERNAL APPLICATIONS. MIS-
CELLANEA.

FOR critical Tumour and Abscess, see Strangles: Encysted, see Windgalls. Phlegmons or Boils seldom require external remedies, see Warbles. Oedematous swellings, see Dropsy. Schirrus or induration, will only give way to potential, or actual cautery. Wens should be extirpated in their early state, which is then easily performed with the hot knife, or perhaps by seton; they have also been successfully amputated upon horses, when very large and broad at the base, the flux of blood being stayed by the cautery, and by styptics: it must be noted they are encysted, and will re-appear, unless the bag be eradicated. For cases see Gibson, Vol. II.

Tumours in general, whether spontaneous, or resulting from contusion, are to be resolved and dispersed, which is effected by compression with bandage, by fomentations, poultices, and

repellents. Inflammation, according to the present theory, is always attended with the production of new fibres, constituting new vessels; these vessels not being re-absorbed, secrete a new fluid, that is, purulent matter, which generally forces its way through the skin: La Fosse observed this kind of new vessels in dissection, but apparently without being aware that it was a general consequence of inflammation.

Wounds, Ulcers, or foul Wounds. All our best writers, from the days of Gibson to the present time, have concurred in making heavy complaints against the farriers, for obstinately adhering to the ancient method of treating wounds, and I am very sorry I have no right to vouch for any general amendment. It is still too much their practice to make use of oils and greasy applications, to cram the parts with long hard tents, to thrust a whole candle into a wound, and there leave it, which has prepared many a horse for his last journey; and to begin too soon, or needlessly, with escharotics.

In a healthy subject, flesh-wounds are sufficiently disposed to unite and heal, nature herself furnishing an agglutinating balsam; the chief care necessary, is to preserve them from the air, and keep them clean. The proper me-

dicaments, whether of the healing, detergent, or discutient class, are composed of turpentine, gums, and spirits, with as little oil as is consistent with rendering the composition sufficiently emollient. Inflammation renders poultices and fomentation necessary. Bring the lips of the wound together by bandage or sewing; indeed the latter is not often necessary. A single stitch is sufficient for a wound two inches long; in large wounds, set the stitches full an inch distant; in those seated upon prominent parts, such as the hips, or the large muscles, the stitches generally burst asunder upon the horse's lying down or rising, on which account the lips must not be drawn too close: the wound being deep, the needle must be passed deep in proportion. Should inflammation and great discharge ensue from the tightness of the suture, relief will be obtained by cutting the stitches. In case of hemorrhage, from an artery divided, pass a crooked needle underneath, and secure it with a waxed thread, in preference to silk; should that be impracticable, clap a button of lint or tow, dipped in some proper styptic (hereafter given) fast upon the orifice of the bleeding vessel, carefully keeping it there with a proper compress, until the eschar be formed. Cover with rags dipped in brandy, tow spread with wound-ointment, &c.

observing it as a general rule, to keep all divided parts as much at rest as possible, to promote union. In two days the first dressing may come off, the parts may be fomented and poulticed, and a proper digestive applied; continue this until the flesh shall appear florid, and the discharge healthy and of good consistence, when the fomentations may be discontinued, and the wound healed with proper attention to the suppression, when needful, of the fungous flesh; but especial care ought to be had, not to dry the wound too much, and render it horny by the abuse of escharotics. The tents, or dossils made use of, ought to be soft and short, and put in as loose as possible.

WOUNDS UPON THE JOINTS OR TENDONS, and those occasioned by stakes, or goring of oxen, are cured by the same method; in these latter, the orifice must be enlarged, and instead of the old farrier's method of thrusting up a candle, and stitching it fast, to confine the matter and impede digestion, make an incision in form of a cross, wide enough for the discharge, and proceed as before.

IN GUN-SHOT WOUNDS, and in case of the intrusion and lodgment of any foreign body, such should be extracted, when it can be done without too much pain and disturbance; otherwise by emollient and drawing poultices; the

orifice must generally be enlarged and a depending one procured.

In SCALDS OR BURNS, the skin being intire, bathe well three times a day with camphorated spirit, in which soap has been dissolved, and keep the parts dressed with linen dipped in the same, or with a plaister of salt and soap ; or use an embrocation of soap, salt, and camphorated spirit. When the skin is broken, anoint with salad or linseed oil. Linseed oil, red lead, and bees-wax, half a pound each, boil and mix over a slow fire. Or, in case of great inflammation, bread and milk poultice with elder flowers. Yellow basilicon with precipitate. Or, dress the burnt parts with—two ounces crude sal ammoniac, boiled a few minutes in one quart water, mix gradually with spirit of wine, one quart. I have not yet had leisure to peruse Kentish on Burns, to which I refer.

ULCERS must be brought to the state of a wholesome wound, and to discharge a good white and thick matter, previously to any attempt at healing. They must be carefully probed, and every cavity and sinus detected, and thoroughly cleansed to the very bottom. Dress, and fill with dry lint to the surface. Bandage tight. In ulcers of the human body, the application of cold water from a tea-pot has been

recommended by authors of good repute ; for instance, Rigby, and lately by Mr. Baynton ; adhesive plaister being applied for bandage. In some cases oak bark, beat very fine, seven parts, with ceruse powder, one part, may have a good effect. Alum water, or powdered charcoal, are of great use to counteract the fetid stench in putrid ulcers. All callous or horny substances must be extirpated with the knife or caustic. In hollow sinuous ulcers, where no counter-opening can be made, injections must be used. When the bones are foul, which is generally discovered by a loose, flabby flesh, a thin, oleous, fetid discharge, and by the rough feel of the bone against the probe, it is necessary to extirpate the loose flesh, to come at the bone, in order to remove the carious part, which is best effected by the cautery. In gangrene, bark internally, and the mortified parts timely sacrificed, to eliminate the putrid serum. In the symptomatic fever sometimes attendant upon wounds, cooling laxatives, glysters, venesection ; in a depraved state of the blood, alteratives, steel, &c. It is recommended to farriers to provide themselves with proper leaden probes, needles, &c. from the surgeons-instrument makers.

VARIOUS FORMS.

THE COMMON POULTICE. Milk half a pint ; salad oil, three large spoonfuls ; *grated* bread enough for due consistence. Add the bread to the milk when boiling, afterwards beat in the oil thoroughly.

SUPPURATIVE OR RIPENING POULTICE IN THE STRANGLES. Leaves of mallows and marsh-mallows, green or dry, twenty handfuls ; white lily root washed and pounded, half a pound ; linseeds and fenugreek seeds bruised, four ounces each ; boil very soft and pulpy, and add elder ointment, four ounces ; and lard as much as needful. Mix, and keep for use.

COMMON DIGESTIVE POULTICE, in Grease, &c. Boil ground oat-meal, and strong beer grounds, add lard enough to supple it. Turpentine, two to four ounces may be added to the foregoing. **OR.** Lily roots, linseed, and rye flour.

RESOLVENT. Onions and camomile flowers properly boiled and mixed, add goose-grease, or for want of it, neat's-foot oil. This is very efficacious to disperse swellings. **OR.** With oatmeal, cummin seeds powdered, two ounces ;

powdered camphor, half an ounce; or sal ammoniac dissolved in British spirit. Proper in bruises, and to disperse coagulated blood.

ANODYNE. Boil chamomile, elder leaves, or flowers, poppy, bay-leaves, and rosemary with oatmeal, mix with elder ointment, and a little camphorated brandy.

REPELLENT AND RESTRINGENT. Dissolve alum in vinegar, or verjuice, add half the quantity of oil, with red wine lees, or stale beer grounds, and bean meal. OR. Old verjuice, or distilled vinegar one quart; alum, one ounce; currier's shavings, or oak-bark, boil to a poultice, with or without saturnine ointment, and apply warm twice a day.

UNGUENTS, EMOLLIENT AND SUPPURATIVE. Elder ointment. OR. Neat's-foot oil, three pints; yellow wax, nine ounces; yellow rosin, half a pound; turpentine, two ounces; ground ginger, two ounces. Melt the rosin and wax in the oil, take off the fire, and add the turpentine; strain hot, and mix in the ginger.

STIMULANT AND DISCUTIENT. Flanders oil of bays, half a pound; goose grease, four ounces; quicksilver, one ounce; turpentine, one ounce. Mix the quicksilver and turpentine thoroughly, then adding the rest, work well half an hour. A quantity of *digitalis*, or fox-

glove flowers, sufficient to impregnate the whole mass, may be beat up with it, the ointment being kept two or three weeks previous to use. To dissolve tumours on the glands, or kernels, either in the brute or human species.

BLISTERING. Nerve, and ointment of marshmallows, each two ounces, quicksilver, one ounce, rubbed in a mortar with one ounce and half of turpentine, till of a lead colour; mix those well, and add cantharides, in fine powder, one drachm and half; sublimate, one drachm; oil of origanum, two drachms. **OR.** Common ointment, or oil, two ounces; cantharides, three drachms. Observe that the flies are fresh and good. Cut the hair close as possible, rub in well and patiently. Tie the horse up without litter, till the blister work. Cover with pitch plaister. When a rowel will not discharge, apply now and then a small quantity of blister with a feather.

DIGESTIVE FOR WOUNDS. Venice turpentine and bees wax, one pound each; olive oil, one pound and half; rosin, twelve ounces; when melted, stir in two or three ounces verdigrease, finely powdered; stir on till cold. This may be used with red precipitate, instead of verdigrease, half an ounce to four ounces. Burgundy pitch one pound may be added to the digestive. For wounds near the joints, &c.

Venice turpentine, one ounce. Yolks of two eggs, honey and tincture of myrrh, one ounce each. BALSAM equal to Friar's. Gum Benjamin, three ounces; storax, two ounces; balsam of Peru and Tolu, half an ounce each; succotrine aloes, six drachms; myrrh, two ounces; rectified spirit, two pints; infuse in a warm place several days, till the gums are dissolved, then decant.

HEALING. Beat up whites of eggs and flour with a little brandy; spread on brown paper. For slight treads, &c. TOBACCO OINTMENT. Leaf tobacco, half a pound; boil in a quart Red Port to a pint (or elder wine and distilled vinegar, equal parts) strain, and add half a pound tobacco in fine powder; lard or oil, one pound; rosin and bees-wax, four ounces each; roots of round birthwort powdered, two ounces. Drying, detergent, and appeases pain.

STYPTICS AGAINST BLEEDING. Puff-balls dried and powdered. Sponge moderately dried by the fire, so as not to destroy its spring, and kept dry. OR. Roch allum and blue vitriol, three ounces each; spring water, one quart, boil till dissolved, filter, and add oil of vitriol, half an ounce. Apply with dossils of lint. Coldbatch's styptic may be had of the druggists.

GELDING is safe at any age in a healthy

subject. Having opened the scrotum, tie the cords with a strong waxed thread, and then cut off the testicle. Proceed as in other wounds. The old mode was with the cautery, and no ligature; very unsafe. Moderate exercise. Several bottle-conjurors have gone about at different periods, pretending to make a *secret* of gelding horses, and working them in a few days; and, *lamentabile dictu*, the secret has died with one of them, notwithstanding a certain wise-acre employed himself two hours, endeavouring to bring the dying man to a confession. The itch for miracles seems innate. *Si populus cult humbuggi, humbuggiatur.*

On this subject of castration Mr. Blaine dilates with much confidence, but, as usual, purely in the speculative way. He asserts roundly, that Gibson and Bartlet, as surgeons, recommended the ligature merely from analogy; intirely overlooking the great veterinary practice of the former. The fact appears to have been, that the ligature was first introduced by Gibson, from the repeated accidents, which occurred in his time, by the heavy-handed cauterizing or carelessness of smiths and farriers. Of this, I have heard complaints in the country, even of late; but in general, they are improved, giving the fire in a more skilful way, and hence, the ligature in gelding horses, has been

long discontinued. My advising the ligature was chiefly on my own experience, and on account of the mischiefs I had seen and heard of from particular cases of hemorrhage, both in gelding and docking: generally, the danger is so small, that I willingly accede to the use of the cautery. It is wonderful how nature so readily and certainly provides her styptics in these cases. Horses, on the continent, have been castrated and instantly driven post; and there is a sow-gelder near Barnet, who will, and has repeatedly, at his own risk, and the mere common price, gelt a full-grown boar, by cutting away the whole scrotum, testicles, cords and all, without using the least application of any kind! I wonder this fellow, on the strength of his boldness and good fortune, has not had, like his northern brother, some right honourable and right reverend patient; not indeed for castration.

Blaine's instance of Mr. Cline's two horses, was inconsiderately given; a mere exception probably. I have never heard that the ligature was laid aside on account of fatal accidents, and it prevailed many years. Mr. Blaine's theory of the danger of inflammation, in quadrupeds, from the peculiar vacancy between the scrotum and the abdomen, will barely hold water. Will facts satisfy him? If boars are quadru-

ped within his description, I can furnish him with some cases. In about eleven years, I cut, with my own hands (a delicate amusement, which it will be strange if ever I repeat) many more, I apprehend, than five score full grown boars, of all ages and sizes, invariably using the ligature, and was equally successful with any other cutter. Part of the time, an old Irishman was accustomed to cut for me, who never used either ligature, or any other application, salt excepted. This man, hearing that another lived with his wife, in Ireland, sat off one day, without shoe or stocking, to travel from out of Surry to Liverpool, and thence across the sea to Ireland, with the full determination, to which every saint in the Irish calendar was called to witness, of gelding his unauthorized deputy. Should the reader wonder at my keeping such a collection of boars, I inform him, that I sold them fat to country sausage-makers, who were in the habit of furnishing the London markets with that exquisite delicacy. On SPAYING, Mr. Blaine had much better have said nothing. It is a strange circumstance, that in the country, the gelders should be so expert at this operation, seldom failing, while in London, they seldom succeed. I have had four sows killed out of five, in spaying.

. SWELLED NECK FROM BLEEDING. Warm

fomentations, cooling saturnine ointment, bread and milk poultice. Check proud flesh with red precipitate and burnt allum, fine powder. If swelling or indurations remain, spirits doubly camphorated, four ounces; bole, one drachm; aquafortis, twenty drops. Apply lint or tow, dipped in the mixture; bind with warm thick flannel. Proper in bruises of the back and withers. Or. Rowel in the breast, and blow the skin up to the part affected. SWELLING, or BRUISE from the saddle: Boil hay in equal parts of stale urine, iron quenched in it, and verjuice; spirits may be added after, or not. Bathe with the liquor, and charge with the hay as hot as can be borne. Renew. A SIT-FAST must be exsected with the knife, or extracted with pincers; in the latter case, place a whisp of hay, and upon it a board, as a fulcrum, or rest for the pincers. As to CHAFING with COLLAR or HARNESS, the most mischief happens from wet, or the harness being rough dry; prevention, or instant remedy. Salt and water. Vinegar. Spirits to the raw places. Leathern flaps are very useful to prevent chafing by the shafts. Harness should be guarded with some soft body, where it uses to chafe. Prevention is the art in all similar cases.

The actual cautery, that prime instrument

in the earliest veterinary practice, has been much used of late, in the above case, and in punctured wounds on the legs and joints. In certain chronic cases, indurated tumours, in the division of parts, and as a styptic, the use of the cautery is of the highest consequence; but there are solid objections to its general introduction, as amongst the Arabians, who applying it to fresh wounds, make slow cures, and leave needless scars. In Osmer's words, the cautery often rouses a sleeping lion. The disadvantages of it, in certain horse cases, are loss of substance and hair, and sometimes the increase of inflammation, to be, in the ultimate, reduced by fomentation and poultice, which, in all probability, would of themselves have proved sufficient for the cure. In punctures of tendinous and ligamentary parts, there is considerable risk of injury from the cautery, more especially if in the hands of smiths, who are sufficiently inclined to the use of the fire. One of those veterinary surgeons, who have lately published, seems to have frightened himself sufficiently by the inflammation he raised with the cautery applied to a prick on the knee-joint. I should apprehend that compress and bandage would prevent the escape of the synovia, and that hot fomentations and poultices would, as heretofore, prove effectual remedies.

The same may be said of swelled necks, which do not appear to be removed more quickly by the cautery, although indeed it might be expected. I do not write thus from the desire of cavil, but of information; and from real difficulties existing in my own mind on the subject.

Professor Coleman, in No. I. p. 5, Veterinary Transactions, observes, "if a joint be opened, the synovia escapes, the hard parts touch the inflamed surface, and frequently occasion death, or a stiff joint. *The usual remedies are, to rub the surrounding integuments with hot oils, and blue vitriol; verdigrease, corrosive sublimate, and other caustic applications are often introduced into the cavity of the wound, and into the joint itself.*" The Professor, doubtless from inadvertence merely, omitted to add, that such was the practice of farriers, but by no means sanctioned by our best veterinary writers, who have directed a treatment, in this case, the most guarded and judicious; making precisely the same complaints with himself. Gibson speaks amply of the danger from a gleet of the synovia; and Osmer, after reprobating the use of repellents and escharotics, warns us that "if the matter in this case be confined, or not well digested, inflammation, tension, gangrene, fever, and

death will certainly ensue." Bartlet was of opinion, that the actual cautery is in general far superior to rowels, setons, and caustics, and regretted the prejudice against it in human patients, through which, he observes, and probably with justice, we fail of success in many obstinate cases.

POLL-EVIL, AND FISTULA IN THE WITHERS. Those generally arise from gross and brutal neglect, and would submit in their early stage to the usual repellents, hot vinegar, &c. with bleeding and cooling internals. When the inflammation increases, and it is obvious that matter is forming, forward with poultices, if necessary, and wait until the abscess be thoroughly ripe, and fluctuating under the finger: then introduce one or more setons, from the upper to the very lowest extremity of the tumour. This will succeed, and indeed make the best cure in a mild case; but in dangerous and inveterate ones, such as I have seen, would be a very feeble and deceptive method, as I have already hinted; and on a reference, I find Dr. Bracken of the same opinion. When the abscess on the poll is opened, if there be matter on both sides, a depending orifice must be made in each. In the necessary operations with the knife, great care must be taken that the muscles be not cut across, and particularly

that the white line, cervical ligament, or as the farriers call it, the fix-fax of the neck, be not wounded; and that the parts be preserved as much as possible from the air. Tie the horse's head high, by which the ligament of the neck will be slackened, and less exposed to danger, as the finger may be introduced under it. It is probable, that some operators in these cases, may have been too free with the knife, but it is equally true, that in foul and fistulous ulcers, in horses, no cure can be expected until the corrupt or callous flesh shall be extirpated, either with the knife or fire; and that at last, there will be frequently such an overflow of greasy and gluey matter, as will blunt and render useless the most potent corrosives, unless applied scalding hot.

THE COMMON DIGESTIVE FOR ULCERS:
Add to the general wound ointment, spirit of turpentine, or a few drachms of mastic and myrrh, in fine powder, or tincture of myrrh, Or use the following; common tar, two pounds; turpentine and honey, half a pound each; a dozen yolks of eggs; melt, and when they are only milk warm, stir in one ounce best verdigrise in fine powder, or an ounce or two of red precipitate; mix sufficiently long, that these last do not sink.

PHAGEDENIC WATER to suppress fungous

flesh. Strong lime water, one quart; corrosive sublimate, half an ounce; stir frequently several days, pour off clear, and add spirit of wine, eight ounces. OR. A strong solution of Roman vitriol and alum, in water.

CLEANSING MIXTURE IN POLL-EVIL, OR FISTULA. Best vinegar and rectified spirit, half a pint each; white vitriol dissolved in a little water, half an ounce; tincture of myrrh, four ounces; shake when used. To be heated in a ladle, and the abscess washed with tow well soaked in it. Fill with tow, moistened in the mixture, or soaked in ægyptiacum, and oil of turpentine hot; and cover with tow soaked in vinegar and whites of eggs beat together; warm woollen over all.

SCALDING MIXTURES. When all measures have failed to bring the ulcer to good condition, from its coldness, and the superflux of matter, scalding has generally been resorted to with success; but I think it ought not to be adopted in case of much inflammation. Corrosive sublimate, verdigrease in fine powder, and Roman vitriol pounded, two drachms each; green copperas, half an ounce; ægyptiacum, two ounces; oils of turpentine, and train, or linseed oil, eight ounces each; rectified spirit, four ounces; mix in a bottle for use. OR. Verdigrease, half an ounce; oil, half a pint;

oil of turpentine, four ounces; of vitriol, two ounces. First cleanse the abscess with sponge and vinegar, then pour in the mixture scalding hot, from a ladle with a spout; close the lips with stitches, and cover to remain several days; if then the matter appear thick and good, nothing farther will be needed than spirituous applications; if otherwise, the operation must be repeated. In a confirmed case of this kind, what would be the event of covering the abscess with a Burgundy pitch plaister, making one or more setons, and turning the horse upon a salt marsh?

TO PROMOTE THE GROWTH OF FLESH. Dragon's blood, bole, mastic, olibanum, and round birthwort, half an ounce each; succotrine aloes, one drachm and half; make an ointment with turpentine.

APPLICATIONS IN GANGRENE. After the necessary scarifications, wash the parts with strong salt and water, and old verjuice, equal parts; or, the nitrous acid; or, camphorated brandy. OR. Boil the following in one gallon strong vinegar, to two quarts—alum, one pound; copperas, half a pound; verdigrease, fine powder, three ounces. Shake as you use it: if not sufficiently strong, add to each quart, quicksilver, one ounce, dissolved in two ounces aquafortis. Foment and poultice. Dress with

basilicon four ounces; oil of turpentine, and ægyptiacum, two ounces each, melted together. Bracken orders scarifications to discharge the ichor, but not to dissect the flesh, as Wallis asserts in his Dispensary.

VARICOSE ULCERS, or those among the blood-vessels, must be bathed once or twice a day with warm fomentations of oak-bark, pomegranate flowers, red rose buds, alum, and white vitriol, boiled in vinegar.

FOMENTATIONS, DISCUTIENT AND REPELLENT. Wormwood, southernwood, and camomile, two handfuls each; bay and juniper berries bruised, one ounce each; crude sal ammoniac and pot-ash, two ounces each; boil in three quarts spring water to two; to every quart when used, add one pint spirit of wine camphorated.

DRAWING APPLICATIONS. Arsmart and brooklime, equal quantities. Just cover them with stale urine, stop close some days. Boil for use, and apply hot. This is said to be particularly efficacious in a sudden strain of the shoulder, with much tension and inflammation, and may be applied in a kind of boot, wide at top, and fastened over the withers. CATAPLASM FOR SWELLINGS. Black soap, yeast and honey, a quarter pound each, goose grease, *q. s.* ginger, fine powder, one drachm.

BLOOD. Solleysel speaks pretty much at large of the prognostics to be drawn from the appearance, colour, and consistence of the blood in horses, and therein several of our authors have copied him; but as far as I have observed, nothing in the world can be more fallacious, and in this opinion I am confirmed by the experienced Mr. Clark; who observes, that the blood of horses which labour hard, generally appears of a darkish, or deep red, and sometimes with a thick yellow, or buff crust; and that the blood of a sick horse will often have the appearance of one in full health, and *vice versa*. This by way of caution, since the badness of the blood of their patients is such a common and alarming thing with our Cyclo-pian doctors.

FUMIGATION for stables, after any infectious disease, from Dr. C. Smyth. Immerse a tea-cup into a pipkin of heated sand, put into the tea-cup half an ounce of concentrated vitriolic acid, gently heated, and half an ounce of pure nitre in powder. Stir them together with a glass spatula, until a considerable degree of vapour arise.

I formerly recommended Capt. Burdon's *recipe* to preserve STEEL from rust. On farther trial, I find it of no permanent use. Rotten

stone, scouring paper, dry keeping, and elbow-grease, are the best known specifics.

PASSAGE OF HORSES BY SEA. A person who took a stallion over to America, *upon deck*, gives cautions against that as a very dangerous practice. Previously to shipping horses, their shoes should be taken off, and their toes shortened. In a long passage they ought frequently to have mashes; sometimes with brimstone and cremor tartar, equal quantities, mixed in them.

TURNING OFF. Much mischief, and even litigation, has arisen lately from errors in this particular. Be it remembered, that tall or large horses cannot subsist upon a short bite, for the plainest reasons; nor is poor winter grass sufficiently substantial for them. In these circumstances, it is necessary that such horses be well filled twice a day from the crib.

HAY. Salt strewed upon the mow, when making, about a pound to three hundred weight of hay (it is said) will correct the damp, prevent mould, and render the hay more nutritious and relishing.

In anointing the hides of cattle, arm the hand with a bladder.

CHAP. XVI.

ON THE DISEASES OF HORNED CATTLE,
AND THE PROPER TREATMENT OF COWS
AND CALVES.

HORNED and other cattle, are not subject to that variety of diseases, and of untoward accidents, which necessarily attends the superior luxury, and more frequent, and severer labours of the horse, hence probably those have not shared the equal attention of our modern veterinarians; but since medicine is medicine still, to whatever creature it may be dispensed, whether to horse or cow, to quadruped or biped, the ineffable burlesque of intrusting the prescription of it to farriers and cow-leaches, will no doubt soon be laughed off the stage.

On this branch, however, had I room to spare, nothing can be expected in the present work, beyond a general outline, and a few practical hints, since I have written another treatise on the Diseases of Cattle. The en-

quirer is referred to my General Treatise on Cattle.

In the ancient writers, scarcely any thing is to be found, applicable to modern occasions, or the enlightened practice of modern times; the same may be said of the books of our modern cow-doctors in general, those lame and imperfect copyists of the ancients, which exhibit an uncouth and barbarous nomenclature of diseases, a vague and unintelligible pathology, with a medicinal catalogue, and method of treatment, perfectly congenial. Divers Italian physicians, both of the last and present century, have treated on the diseases of cattle, but from what I have read in their works, I think I may venture to assert, that little to any beneficial purpose, is to be drawn from those sources. The various writers on black cattle and sheep, have been collated by Haller, and in the *Giournal di Literati* of Italy. Dr. Hale's Vegetable Statics may be consulted, and Dr. Layard before mentioned; for the rest, a practitioner must be guided by the analogy which holds in the diseases of the larger animals, and his own discriminating observations.

Much the same methods of administration, whether in regard to medicine, or the common operations, are in use amongst other cattle, as with horses; the same *materia medica* must be

naturally common to both; and all those coarse or insignificant vulgar articles, with which cow-drenches are stuffed, ought to be totally rejected, as of equivocal use, if not of probable bad consequence. The doses for neat cattle seem not to have been hitherto properly ascertained and apportioned; but the little experience I have had, leads me to suppose, that they require a less quantity of medicine in a dose, than horses, by about one third in general. Why balls are not given them as commonly as to horses, I am ignorant.

The medical aids generally required for cattle, are of the relaxent and deobstruent species, with the occasional demand of cordials; agglutinants have little place here, the animals possessing the inherent quality of being fattened with their proper food. The attempt to restore animals in a cachochymic or consumptive state, by the help of medicine, would be most unpromising; and the first end of such, will on calculation be always found the best. When unthrifty animals have a fine silken and glossy coat, the true *prognosis* is, that their *viscera* are unsound; and I have generally observed the liver of such to be of bad colour and consistence, and the lights adhering to the *pleura*, or tegument of the chest; with a rough and staring coat, their ill habit may probably arise from

internal obstruction only, which alterants or purgatives may quickly remove.

The STURDY, OR TURNING-EVIL. See Staggers in Horses.

FOUL IN THE FOOT, arises from want of cleanliness. Prevent by constant attention. For cure, cleanse with bran and water boiled, and lather of black soap. Use Bracken's Fistula water (Index.)

GARGET IN THE MAW, from swallowing crabs, acorns, &c. See the same in Horses.

SCOURING IN Cows. This is common enough, and I have seen it continue so long for want of care, that the disease has been irremediable. Dr. Downing's prescriptions in this case, of turpentine, pomegranate powder, pipe-clay, oak-bark, verjuice, &c. appear to me very dangerous, and likely to lock up the offending matter in the intestines. This *diarrhæa* arises from various causes, to wit, change of diet, the solution of a cold, particularly after calving, or in travel across the country; lastly, it may be a symptom of rot, either from bad keep, or constitutional; this I think I have sometimes discovered by the hair pulling off, as from a glandered horse. Take it in time, and allow comfortable mashes with warm, dry, and generous keep. See the disease in Horses. It is called the ROT in the North.

The HOOSE, OR CHRONIC COUGH. This in cows is often incurable. It usually proceeds from cold taken in calving, and cold and wet winter lying. For palliation, or cure, see broken wind in Horses.

LOSS OF THE CUD, OR QUID. By reading the strange account of this indisposition in the old writers, one is led to suppose that the beast, through carelessness, drops something from its mouth, like a quid of tobacco, and lies down to mourn the loss of it: their remedies were equally satisfactory. You are directed to take yeast, clay, piss, salt, and the slaver of another beast, with which a new quid, or ball, is to be made for the patient.

The real cause, and remedy for this disorder, are as follow: Cattle which ruminate, or belch up their food for mastication, are provided by nature with four stomachs; of these the *rumen*, or cud-bag, which receives the provender, is constructed with certain fleshy fibres, or contracting muscles, which by drawing and pursuing it up, enable it to throw into the gullet and mouth, the crude aliment to be chewed over again. The defect exists in the laxity and weakness of those contracting muscles, and their consequent inability to expel the food for the purpose of rumination. This weakness may arise from various causes. The intention

of cure is to brace the fibres and strengthen the system. Begin with warm mashies of bran and ground oats. Give from four to six drachms, according to the size and strength of the beast, of the finest aloes and rhubarb, equal quantities; salt of tartar, half an ounce; aniseeds powdered, one ounce; either in gruel, or beer warm. Good sweet hay, small quantities at a time. In two or three days, bark and gentian, half an ounce each; ground ginger a tea-spoon full, in warm ale, moderately sweetened, twice a day, to be continued awhile; or, occasionally a decoction of horehound, chamomile, and *carduus*, sweetened: the very rough astringents, such as verjuice, oil of vitriol, alum, &c. used by cow-leaches in this case, are highly improper, and sometimes have fatal effects. Clarke relates an instance of a horse being killed by a draught of vinegar.

RED WATER, OR BLOODY URINE, OR FOUL WATER, in Cows. Opium, sixty grains; with or without as much rust of iron; or thirty grains vitriol of iron to be given twice a day, in a ball mixed with flour and water, and dissolved in warm ale: corn twice a day, and cover at night, if cold weather. *Zoonomia*, Vol. II. p. 69.

GORGED OR HOVEN, *i. e.* swelled with over-feeding, either with green or dry food.

Bleed from three pints to four, and drive about moderately. The case being slight, either of the following drenches may succeed, without paunching. Glauber or Epsom salts, two to six ounces; syrup of buckthorn, if at hand, one ounce; nitre, one ounce; oil, half a pint: peppermint water, or gin, a quarter pint; ground ginger, *q. s.* in three pints warm whey or gruel. The addition of two drachms succotrine aloes in fine powder, will render this medicine more effectual. OR. Dr. Whytt's medicine, of Edinburgh, by which he saved eighteen hoven cows out of twenty. Gin, one pint, in the same quantity of water. When the affair appears dangerous, and the beast cannot stand, lose no time, but perform the simple and easy operation of paunching; *viz.* make an incision with a sharp knife, on the near side, about an inch and a quarter long, between the rib and hip-bone, three inches below the bones of the loin. In case of pregnancy great care must be taken. The wound may afterwards be healed with tar and spirits, or Friar's balsam. A farrier, in Sussex, lately took from the body of a cow near two bushels of indigested hay. Some insert a tube into the wound to conduct forth the imprisoned air; and Professor Munro of Edinburgh, invented a flexile one, to be passed through the mouth into the stomach of

either oxen or sheep, which may be had of Mac Dougale, Oxford-street, London. This tube may be left in the stomach of the animal any length of time, being no hindrance to breathing; or any medicine may be injected through it. It is held a safer method than incision by Dr. M.

EPIDEMICS IN CATTLE; PEST, MURRAIN, OR PLAGUE. See Horses. Dr. Layard, our best, or rather only author on this subject, published his book from *Rivington's*, 1757. The doctor defines the distemper as a pestilential fever *sui generis*, peculiar to animals with horns, but uninfectious to all others. Leonard Mascall, however, relates an anecdote in his days, of an infected hide, carried on horseback to a tanner, which killed both man and horse, tanner and all: although such writers are little to be depended upon, one would suppose this to be too plain a case to be mistaken.

The following is extracted from *Zoonomia*, Vol. II. p. 249. The *Pestis Vaccina*, or disorder among the cows, seems to have been a contagious fever with great arterial debility, as in some of them, in the latter stage of the disease, an *emphysema* could often be felt in some parts, which evinced a considerable progress of gangrene beneath the skin. In the

sensitive, irritated fevers of these animals, I suppose about sixty grains of opium, with two ounces of extract of oak-bark, every six hours, would supply them with an efficacious medicine, to which might be added thirty grains vitriol of iron, if any tendency to bloody urine. To prevent the infection from spreading, an order from government, forbidding the removal of any cattle found within five miles of the place supposed to be infected, for a few days; until the ascertainment of the existence of the contagion by a medical committee: That being ascertained, all the cattle within five miles of the place to be immediately slaughtered, and consumed within the circumscribed district; the hides to be put into lime-water before proper inspectors. See General Treatise on Cattle.

MILCH COWS AND CALVES. My small dairy, for some seven or eight years, varied occasionally between two and ten cows: I shall present the reader with a few hints on the subject; in the obstetric part particularly, taking the advice of Dr. Downing.

SWELLED UDDER. Some cows are liable to have the udder exceedingly swelled and inflamed, a few days before calving. Milk the cow twice a day, and bathe the parts thoroughly with camphorated spirit. It is an

error to suppose milking a cow before calving is injurious.

CHAFING. Cows which are cat-hammed and go close behind, are apt to chafe the udder and thighs: I have had them raw, and even ulcerated in those parts, emitting a very disagreeable stench. Wash twice a day with warm soap suds, and bathe with *aqua vegeto* and camphorated spirit mixed: or, for want of those, brandy alone.

CHAPPED TEATS. Were the consumers of milk to witness the filth which is mixed with it, in this case, they would think less of the trouble of prevention. Instead of suppling the teat with warm milk as usual, which most probably goes, filth and all into the pail, order a bowl of warm water for the purpose. After milking, use the mixture ordered for chafing. Avoid all greasy applications if possible; if not, use elder ointment, or goose-grease, with a little ceruse mixed. In seven or eight days, the teats will be whole, and *cleanliness* may preserve them so.

Cows are much more liable to danger in parturition, than other brute animals, and their bodies at that time are exceedingly accessible to the impression of cold air. Warm shelter, if the weather be cold or wet. Comfortable

mashes, with gruel, and a quart of warm ale. If cold be already taken, mix the size of a pigeon's egg of cordial ball, in the gruel; if that be not at hand, aniseed, half an ounce, in powder; two tea spoons of powdered ginger; treacle, and the decoction of a handful of juniper berries. Keep the cow within untill well.

Watch, and put the afterburden, or cleaning, out of the cow's reach, as their devouring it is sometimes attended with nearly as bad effects as its retention: this last, I have sometimes seen attended with fatal effects; and upon dissection, the part remaining, has been found in a putrid state. The beast more usually lingers a great number of months. Symptoms, staring of the hair, falling away of the flesh, intermittent pulse, shuddering, coldness of the ears, fetid breath, knots in the mouth, general languor and debility. The old leaches called this "wethering." I have treated this malady successfully as follows: Warm lodging. Gentle currying and brushing, twice a day, permitting the cow to walk about in the day time, if fine. Good hay, mashes, cordial, &c. as before. In the morning fasting, the following mixture, in three pints strong decoction of pennyroyal, gruel, or ale: *Elixir Proprietatis*, compound tincture of castor, and Volatile Aromatic

Spirit, of each a table spoonful or more, three successive mornings. Should the beast be costive, a single drachm or two of the finest aloes, in powder, may be added to one of the drinks. The alternate use of aloetics and cleansers of the womb, with cordials and tonics. Repeat occasionally, if needful. The cow to be sucked dry, not milked.

For a violent puerperal fever, called by Downing, **DROPPING** after calving, he advises the following medicine, in a decoction of feverfew, balm, and chamomile, to be repeated every twelve hours: Nitre powdered, two ounces; rub it in a mortar, with a tea spoonful of oil of vitriol; then add valerian, one ounce and half; snake-root, one ounce; treacle, half a pound. A pint of the decoction of the herbs, sweetened every two hours. Keep the cow warm with proper covering. Back-rake, if needful. Place her with the fore-parts elevated. Thick gruel or milk-pottage. Constant attendance night and day.

INWARD BRUISES, FROM EXTRACTING THE CALF. Spermaceti, and Irish slate, two ounces each; Castile soap, and diapente, one ounce each, in a quart of warm ale, daily. Or, the same made into balls with Venice turpentine.

Warm water and mashies.

WANT OF MILK. The drink and treatment recommended in colds. Or, fennel, aniseeds, and grains of paradise, two or three ounces, in warm ale, sweetened with Spanish juice; repeat.

VETERINARY OBSTETRICS. The disciples of Mauriceau, Bracken, Smellie, and Denman, need not be at a loss here to direct the operations of the leach or hind; analogy is a sufficient guide. Cows, particularly the Northern short-horned species, often need the assistance of the accoucheur. The natural presentation of the calf, is with its head and fore-feet, the nose between the feet, and the back upwards. Downing enumerates seven preternatural positions: namely, 1st. Reverse presentation, or tail first. 2d. Fore-feet, no head appearing. 3d. Sidewise, belly upwards, head reversed over one shoulder, legs appearing. 4th. Fore-feet, with head under the brisket. 5th. Head alone, or one fore-leg only, with it. 6th. Head and one leg, or head alone. 7th. Calf lying on its back, its four legs folded nearly together, and close up to the cow's back, the head appearing, or doubled back, even with the ribs, on one side or other; one hind-leg, perhaps, presenting.

GENERAL RULES. Timely assistance, before the cow is exhausted. Extraction never

to be attempted in an improper position. Supply the hand and arm with warm water and fresh lard. Examination best made, the cow standing, and in the interval of pains. In pulling at the feet, inclose the claws in the hand, that the horn may not bruise the cow. Navel string bursting, and the usual flux of blood, of no consequence. Instruments to be used only in the last resort, and by experienced and steady persons only. The proper hook is of hard iron, four inches long, with a loop for the cord at the straight end.

IN A NATURAL POSITION, if the cow should want help, the position of the calf may be ascertained after the waters have been seen. A cord ought to be in readiness, to attach to the fore-legs of the calf, in order to assist each natural exertion. The head to be kept clear of obstruction.

PRETERNATURAL POSITION, No. 1, as above. No attempt to turn the calf, this position being favourable for extraction, but use expedition, for fear it be suffocated. Press the haunches back with the palm of the hand, take hold of the bend of the hock of one leg, pull at it, and reach the foot; both feet may thus be brought forth. No. 2. Reduce the head to its proper situation, between the fore-legs, either by hold of the nose, or jaw-bone. A long arm is needful, which must be kept to the

full extent in the body, that instant advantage may be taken of every throe, the fingers being properly fixed.—No. 3. Gently move the calf back, and bring the head forth to the legs.—No. 4. Push the calf back to find the head; pull at the nose: this requires address, but it is useless to employ force, until the head be in its proper place.—No. 5, and 6. Push the calf back against the shoulders and brisket; the feet will be found folded under the belly, bring the feet forward, one at a time, the hand being gently placed on the bend of the knee. Should the head be too much swelled and bruised, to be returned, it must be skinned and amputated. Dissect in a straight line, from the poll to the nose, force the skin back over the first joint of the neck, divide the head from the body, pushing the latter back to obtain hold of the knees. The loose skin must be previously wrapped over the ragged bone, and an assistant should have fast hold, in order to guide it clear of the haunch-bones of the cow; should it hitch there, put back instantly.—No. 7. If one hind-leg appear, put it back: the calf cannot be brought forth with a hinder and fore-leg together, and the difference between the knee and hock, will be immediately discovered. The head being doubled back, must of course be reduced to its proper place. The cow

being strong and quiet, the business may be effected with care and patience; but should the hook be positively necessary, hold must be taken, either in the sockets of the eyes, cavity of the ears, or in the jaw. Keep steady until fair hold be taken. The case of Dropsy in the calf, will be sufficiently apparent by its preternatural size; use the knife carefully, should that be necessary, to pierce the belly of the calf.

SUCKLING. The common error of the nursery universally prevails in the calf-pen. Calves are either allowed too much milk, or their stomachs are overcharged with too great a quantity at a time; hence their digestive faculty is overpowered, thrift is impeded, and a state of disease induced, the most common symptoms of which are, alternate purging and costiveness. Perhaps twice a day is too seldom, and it would probably pay the extra trouble, to suckle three times. The calf keeps so many hours from the teat, often, in winter-time, sixteen, greedily swallows an immense quantity of milk, sinks down to sleep, wakes with the disagreeable consequences of an overloaded stomach, belching up a scalding acid liquor, and remains restless and bleating for a fresh supply and a repetition of the error. Many people milk the cow first, which is bad

practice, the last milk being the richest, and not so proper for the calf. We have here the reasons for the frequent sourness of veal, and for its producing curds and whey, instead of rich and wholesome gravy.

COSTIVENESS IN CALVES. Take the chalk from them. Give half an ounce, to an ounce of magnesia, with the same quantity of aniseeds powdered, in a pint of warm gruel, the powders being well mixed in it. This may be given occasionally, obstruction being a great enemy to thrift. **OR.** Rhubarb and magnesia may be given, equal quantities. I have repeatedly seen the good effects of this practice.

PURGING CALF. I must differ totally from Dr. Downing in this case, for reasons already assigned. He advises for a dose, chalk, pomegranate, bole, and alum, to the amount of four or five ounces. I have no idea that articles of that class, can do any thing but mischief to a sucking animal. I would recommend rhubarb, and a table spoonful or two of peppermint water, in warm ale. Afterwards, if necessary, two drachms of diascordium, in ale, for two or three days. Rice gruel. This failing to have an immediate good effect, the butcher's knife is the most profitable remedy.

ADDITIONS

TO THE

THIRD EDITION.

IMPROVEMENT OF THE BREED OF HORSES,

I HAVE already thrown out a few hints on this topic, which has long engaged my attention, and will now attempt to say something more conclusive. Our pretensions to superiority in horses, real use more especially considered, do not rest on the sandy foundation of national prejudice ; all foreigners, who have had the opportunity of comparison, assign the preference to the English horse, and the surest proofs of it are the eagerness with which they seek him, and the high prices at which they are willing to purchase. This indeed has been the case from a very early period, and the con-

sideration that our advantages have been derived entirely from imported foreign breeding stock, and from the changes gradually wrought upon it in this country, must afford the most rational encouragement to persevere in our course of improvement, to adopt a more regular and systematic plan, until we approach the nearest possible stage to perfection. To remain stationary will be inconsistent with our high national reputation, and with a very important national interest.

We have already advanced, perhaps to the ultimate point, in the objects of lightness, delicacy, and sightliness of figure, for every purpose; our military horses, formerly of such preposterous and unwieldy bulk, are now generally as much reduced in size and weight, as is consistent with the weight of which they ought to be completely masters, and no cavalry in Europe, I apprehend, could, at equal numbers, either stand the shock with the British cavalry, or escape their pursuit. This I believe to be conceded by the nations upon the continent. As to quick draught, we can scarcely *refine* higher, considering the great number of thorough bred cattle which are employed in that service, and the great portion of blood which is in such universal request. Our cart horses likewise,

with the exception of the metropolis and those counties whence it is supplied, are in general to the full as light, as is consistent with the animal weight required as a prime object in draught; and I have in a former chapter of vol. 1, where I had previously objected to the bulk and weight of the great horse of the midland counties, allowed his late improvement in shape and action. This universal adoption of a lighter species of horses, has probably been attended with the advantage of a saving in food, and undoubtedly contributed to the speed and convenience of our journeys, the lighter horses being really able, without abuse, and even with facility, to make that dispatch, of which their heavy cart bred predecessors were totally incapable. I am yet far from being convinced, that a more square and substantial form of the horse for quick draught, would not be superior to the present hunting forms which we daily see upon the roads; equal, or even superior action in the trot, the only pace required, might be obtained in the former, with superior powers of draught, an object surely of great consequence, from the immense, indeed, shameful loads, carried by our yet flying stage coaches, against which their light horses tuggle with misplaced and inadequate ability. They

drudge through their incessant and torturing labours, it is true, but too many of them fall a premature sacrifice, both for the interest of humanity and the pecuniary interests of their owners. I cannot better explain myself, perhaps, on my ideas of an advantageous form for quick draught, than by referring those who can remember thirty or five and thirty years past, to the fashionable gig mares of that period.

Allowing our undoubted superiority, that there have been English horses in every period, within the last century, bordering on perfection, and that at the present time, individuals are to be found approaching that character, in all the requisites of utility and beauty of form; yet it must be conceded, that instances of high qualification are rare, and that if a middling species for use and figure predominate, the number of those in the favour of which nothing can reasonably be said, is far too considerable. This defect by no means originates in inferiority of size or of breed, but almost entirely in faulty conformation, with respect to those points most contributory to strength and activity, and also to symmetry and beauty of form. The notorious difficulty of procuring a serviceable horse out of the immense numbers bred and exposed to sale in this country, and

the rarity of one of thorough shape and high qualification, the capital prizes in this real lottery, entirely exempt me from the labour of proof. They have not in fact, formed an erroneous estimate, who assert, that more substantially useful and equally active horses, were to be found in the country, thirty years since than at present ; and still in a greater degree, those of first rate qualities. There was in the hacknics of that day, a union of substance and action, which we do not so often witness at present, and which is perhaps now more readily to be met with in the hacks and hunters of Ireland ; considerable annual importations of which have of late years occurred. Since the rage for a shew of almost thorough blood, as well for the barouche and curricule, as for the saddle, the views of our breeders seem entirely confined to figure and height ; and this being all which is required, for the ample, or rather comparatively excessive prices, which have been given of late years, it is not rationally to be expected, that the generality of breeders, whose prime object must necessarily be present interest, will be at the pains of farther reflection, or of aiming at the change of a system, perhaps to them, the most productive, since the more slight and superficial in real goodness,

their stock, the sooner will it be torn to pieces, rendered useless, and under the necessity of being replaced, to the obvious increase of demand, and continuance of high price.

Here we have precisely, the old and universal case of an opposition of interests between the public and particular bodies of men, and in all such, I profess to write without a single reserve on the side of the public. It is the interest then, of the public and of those breeders of horses, who are emulous of serving the public with honour and integrity, as well as from mere motives of emolument, and the number of such must doubtless be considerable in our country, to aim at the attainment of solid and substantial qualities in their stock, as well as the more superficial and attractive of external figure. The benefits which would thence result to the public are numerous, of the highest importance, and the detail will be gratifying to the heads and hearts of those who delight to contemplate, although at a distance, prospective plans for the promotion of human enjoyment, and the alleviation of animal misery.

The more substantial and accurate in symmetry, the conformation of the animal destined to labour, but more especially to that labour in which speedy action is required, with so much

the greater facility, and proportionally less injury, will the animal perform his task. Were any elucidation of this position necessary, the following must be obvious to all who are accustomed to witness English post work. A pair of horses shall start in a chaise, the one with a shoulder calculated for expedition, substantial loins, and so favourably formed in the lower extremities, that he never knocks or cuts a hair, but from accident. His partner, with defective shoulders, a loose middle piece, and his lower joints so badly formed, that he wounds one or other of his legs, at almost every stroke. Suppose the pace required to be from eight to ten miles per hour, throughout a stage of fourteen or fifteen miles; after the first burst of five or six miles, the inferior horse whose rate is probably insufficient for the speed required, begins to run distressed, and his distress must increase every yard afterwards; he hacks and wounds his legs, scours and wastes his substance in faint sweats, and horrid to relate, although abominable custom has taken all horror from the sight, the utmost tortures of the whip and goad, must supply natural want of ability, and the unfortunate creature must undergo the most cruel punishment for the crime of natural defect. In the mean time, the well formed horse

runs through his stage with ease, even unconcern, and if his driver chance to possess common sense, little or no abuse. The stage finished, the one eats his corn with an appetite and with due nourishment, whilst the other droops his wretched head, dissolves in sweat at every pore, and if he feed at all, mumbles over and swallows his food as it were mechanically, acquiring little nourishment or vigour therefrom. Under an unremitting course of severe labour, for which he is so ill calculated, he soon sinks heart-broken, his lacerated body bearing the marks of the tortures he has endured. One well shaped horse will often outlast three or four of the above description, notwithstanding the best horses have always imposed upon them an extraordinary share of the common labour. The analogy holds in proportion with slow draught. A compact and well-formed cart horse will move a given weight with far greater dispatch and less injury to his powers, than one with narrow, defective loins, and long legs.

Humanity is thus powerfully interested, in promoting the improvement of the English horse, from which such severe services are required, as also is every class of proprietors, in regard to their profit and convenience. I do not wish to encourage the expectation, that an

improvement in the breed of horses would render a less number necessary, but that a superior form would enable the animals to execute their labour with greater ease and less injury, whence an immense national saving would accrue, from the greater quantity of labour which might be obtained at the same expence of keep; and there is a farther consideration of high consequence, that horses generally go with safety as well as speed, in proportion to the just form and position of their shoulders; thus even the risks of riding on horse back, may be greatly reduced by improvement in the form of the horse.

Having generalized thus far, the remainder of my task consists in pointing out specifically the defects to which I have alluded, their probable remedy, and its means of attainment.

The most material DEFECTS of horses, in which well-placed substance and unembarrassed action, are the prime requisites, will be found as follows:

ABRUPT SETTING ON OF THE HEAD. CREST REVERSED, OR SUBSTANCE OF THE NECK BELOW. SHOULDERS OF INSUFFICIENT COMPASS, DEPTH AND SUBSTANCE, OR UPRIGHT, INSTEAD OF DECLINING TOWARDS THE WAIST, OR GROSS AND HEAVY.

GIRTH TOO NARROW, IN PROPORTION TO THE SIZE OF THE HORSE. WANT OF WIDTH AND SUBSTANCE IN THE LOINS, FREQUENTLY WITH THE APPEARANCE OF A SINKING OR CAVITY ACROSS THE FILLETS. DEFICIENCY OF WIDTH OR EXTENSION OF THE HINDER QUARTERS; THE HINDER APPROACHING NEARER TO EACH OTHER THAN THE FORE FEET. WANT OF SUBSTANCE IN THE LEG BONES. CROOKEDNESS IN THE HOCKS AND PASTERNS JOINTS. FAULTY POSITION OF THE FEET, THE TOE BEING TURNED EITHER OUTWARD OR INWARD.

For a more enlarged account of the defects of horses and comments thereon, the reader will return to the first volume; the above may be held the most signal and original. It will be immediately obvious that the remedy must lie in an improvement of our breeding system, horses being bred without, as well as with the enumerated defects; and the most ample and long tried experience being at hand, to vouch for the success of judicious measures, in the attainment of the end proposed.

The basis of change or improvement in the animal form, is the old axiom that *like produces like*. This we witness primarily, in ge-

nus, species, and variety ; for example, the conjunction of horse and mare, produces a horse or mare ; of a thorough bred horse and mare, a thorough bred foal ; of a thorough bred horse, and cart mare, a half bred foal, and so on in endless variety. To a certain degree, the same effects follow, in regard to the animal constitution and external form, the produce following the resemblance, and inheriting the merits and defects of the sire and dam. Yet all these may be modified, and some of them neutralized by gradation or opposition of form and qualities in the parents. A hot tempered horse and mare will produce stock of a similar disposition, and even such disposition in the stallion alone, has run through many generations. A trotting stallion, that is to say, one properly formed to excel in that pace, will get trotters, if there be no very considerable countervailing property in the mare ; but should her form equal that of the horse, very high qualifications might rationally be expected in the produce. Attentive breeders are well aware how even marks and peculiarities from both sire and dam, descend to their progeny. There is a stallion covering at this time, or was very lately, the foals of which are all crooked in the knees. Some are remarkable for getting stock with

strong and sound feet, others for the reverse ; and I have heard of a horse in the north, the progeny of which were almost invariably subject to defective frogs and running thrushes, one example of which, indeed, involved me in no little trouble.

The truth of these observations will be acknowledged, or rather cannot be controverted ; but it is pleaded, that *like* frequently fails to produce *like*. Is it then strange that general rules should be occasionally accompanied with their exceptions, or that failures should be experienced in this world of uncertainties ? A husbandman shall prepare his land with the greatest judgment, sow the best seed, exhibit the most sedulous after-tillage, and yet reap an inferior crop ; which is yet no proof that such measures are not the best adapted to the attainment of success ; for the truth is, they are not only, in a general view, the best assurance of success, but they form the only road which leads towards perfection. Thus, if the cattle breeder who proceeds upon the principle that like produces like, is successful generally and upon the average, and this has never failed within my knowledge, he will succeed in this, with an equality of success experienced in every other species of human projection. What

ground then of dissatisfaction, or what more can be reasonably expected?

A slight view of the matter, which, indeed it is strange should have been so long overlooked, will demonstrate a very palpable error in the common notions of horse breeders on this point. They expect from a misplaced analogy with cattle improvement continued through a course of years, that the male should do all, and in one cross, the work of one year, fully impress his image and likeness. But to confine ourselves simply to the position of like producing its like, two can, or rather must play at this game, and a true shaped stallion shall procreate a foal of a form far inferior to his own, and nevertheless like may have produced like in a very precise degree. Because the position must of necessity relate to the female, as well as the male. The stallion may have a good shoulder and loin, and stand clear and straight upon his legs, the mare in some, or all of these important points, may be totally deficient. In such conjunction, the utmost that ought to be expected, is a *tertium quid*, the foal, partaking in certain degrees, of the perfections of the sire, and the imperfections of the dam; were it otherwise, and should the produce equal the perfection of the sire, *like would not have pro-*

duced like. The ancient breeders seem to have judged more comprehensively in the case, from Blundeville's statement, that, *most commonlie such sire and dam such colt* : a position, in all probability, by him derived from earlier times.

The above facts, for they stand on the ground of experience, elucidate the necessity of that attention to the form and qualities of the mare, which I have so often endeavoured to inculcate, and which, in our common breeding system, is so universally neglected. Nor will the correctness of the assertion be doubted, that to expect thorough shaped produce, without the aid of a thorough shaped mare, as well as horse, would be equally futile, as to hope for a racer from a mare but half or three parts bred, an occurrence of one in the thousand, and an exception to the general rule.

Let me be understood fully to acknowledge the *lusus* and caprices of nature and chance, in the affair of procreation, and this chance we can neither analyze nor controul. From the sexual conjunction, a monster may be the result. No certainty or even probability can be arrived at, whether the produce shall be male or female, although the ancients supposed that circumstance to be a contingent on the bodily condition of the parents, and that the stallion being in high vigour, and the mare in low plight, a

colt foal would be the result, and *vice versa*. It is again, the general idea, that the produce always bears most resemblance to the male, both in form and qualities, an opinion which ought to be received with much greater reserve, than it universally is, which universality has no small share in confirming the opinion, by rivetting the attention, as it were, almost entirely to the male, and by the circumstance, that the male is necessarily of the greater consequence. But my observations through a course of years, of considerable length, upon the human animal, horned cattle, horses, and poultry, have a tendency to shew, that upon an average, the progeny resembles both sire and dam, in an equal degree, either by a mixture and union of qualities, or by intire resemblance in particular parts, or by the chief resemblance of the male at one birth, and of the female at another. Occasionally, a strong resemblance of the grandsire, or even of a more remote ancestor will occur, and I have, within the present month, seen a hunting mare, so truly the picture of Old Regulus, and a gelding so extremely like the portrait of Childers, that it is almost impossible to form a doubt of their descent. According to the portraits, Second by Childers, took his form almost intirely, from Basto, his maternal grandsire; and if my me-

mory be correct, it was Tulip by Damper, of which, on viewing her, I made a similar observation. This likeness to ancestors, I have no doubt, has given rise to the absurd notions of superfetation in sows and bitches, experiments relative to which I have repeatedly made, with all possible accuracy. The circumstance in this case, of the male or female being of a mixed breed, may not have been observed. Mr. Tattersall lately related to me the curious fact, that neither Highflie, nor Sir Peter, ever got a chesnut foal, notwithstanding that many chesnut mares must have bred by them, yet Highflie got various colours, even to pye-balls.

There is yet a host of probable causes of failure, many of which may be discovered, if they are not so easily obviated. In the choice of breeding stock, external conformation, apparent qualities, and actual performances, are our only rule, which to speak technically, we must take with all faults, namely, its exceptions.

The common failure then, of like producing like, or rather of the produce proving equal to its sire, which is generally better shaped than the dam, ought in reason to be attributed to the inferiority of the latter, and no man will pretend to question the probability of success, from a union of thorough shapes in both, far

great an effort of nature, for frequent repetition, and the union of a number of properties bordering on perfection, with respect to themselves, is necessary to complete the racer; no wonder so few excel, among so many bred. The risk and uncertainty however, in breeding for other purposes, are by no means so great, since whenever size, figure and a moderate share of symmetry are obtained, the breeder's end is at least profitably, if not completely answered.

I have adverted in my other works, the General Treatise on Cattle, and in the History of the Horse, with plates, to the advantages gained by *crossing forms*, a variety in which nature ever delights. For example, in the union of the long and loose, with the short and compact, and in general, the counteracting defects on one side, by their opposites on the other, the efficacy of which will seldom fail to appear, in the particular improvement required. This, in my opinion, is one of the most important species of crossing. An attentive, perhaps, no very long cause of breeding after this mode, since we at present possess much good stock to work upon, would infallibly produce a race of thorough shaped nags, and increasing improvement would annually diminish the difficulty of obtaining good models; but

skill, persevering industry, and not the least qualification, an adequate portion of enthusiasm in the cause, are indispensable. Such undertakings are not calculated for that common race, whose sole ambition is turning the present penny.

It was the opinion of Osmer, whom I have so often quoted, with respect, as one of my masters, that the matter of external conformation has ever been too little regarded even upon the turf, where blood, or rather fashionable blood, is all in all. This error, for such I am convinced it is, subsists in full force at the present moment. It is an old maxim, *to back the winning racer*, and the idea is always carried into the stud, where the blood of the winning racer is backed until it prove no longer worth backing; it then ceases to be fashionable. Without denying the real genuineness and superiority of blood in certain of our old stallions, the founders of celebrated breeds, since I am fully convinced of their existence, I must still insist, experience has proved, that we carry such ideas to their useless extreme. I had touched on this point before, and have reason to believe, that the late Samuel Chifney, the jockey, with whom I had some communication by letter, two or three years since, agreed with me thereon, as well as on the yet too pre-

valent error of over training ; and on the more just and favourable treatment which I claimed for the race-horse.

Upon the average it will appear, if not invariably, that our great racers have owed their superiority to the excellence either of some important point of external form or an assemblage of such, and that the failure of our presumed best bred horses has originated in a similar defect. If this has not been always apparent, neither has always a minute scrutiny taken place. As Osmer said of his time, the general reason assigned for a failure, is, *the blood did not nick* : the easiest logic in the world. Another consideration is, that putting entire new blood out of question, all the present breeds must in the course of years and of crossing, have a plentiful infusion of the most valuable blood, namely, from the Byerley Turk, the Darley, Alcock, and Godolphin Arabians, and others of the highest form as stallions. That a thorough shaped horse or mare of any reputed breed, must, one would suppose from reasons grounded on experience, be far superior to any of inferior shape, although sanctioned by the opinion of fashionable blood. To put an end to all difficulty in the case, and in a way in which even the favourite opinion may be retained, let as much at-

attention be paid to external shape, as to the blood of the racer.

Such a plan must not only, in all probability, increase the number of good racers, and contribute to the facility with which they perform their labour, but also render them much better adapted and more useful in other services, in course, of greater worth, on disposal. Crookedness in the lower joints of racers, has been a too general turf opprobrium, which must of necessity, detract, in a certain degree, both from the strength and velocity of the animal machine. Whether Osmer's plan of setting the feet of racing foals in the stocks, as we are accustomed to do with our children at the dancing school, would succeed, I have never yet assayed, although I have been sometimes strongly tempted thereto; but I think more care ought to be used to obviate this defect in the choice of breeding stock; for although it be deemed the mere effect of debility, that originates in the parents of the foal, and even independently of debility as a cause, I believe such and other defects to be propagated from sire or dam.

The rigid notions of the necessity of crossing the racing breeds, one with the other, and the panic of even making an approach to the system of breeding in and in, which we have so

successfully practised in cattle breeding, have probably been a great bar to the improvement of external form in the racer. Certain breeds have long been supposed as the best cross for each other; for example, the descendants of the Darley Arabian with those of the Godolphin, and the idea is well founded; we have in all likelihood obtained great speed from the one and stoutness from the other: but as I have observed above, the idea has been abused by excess, nor is there any sufficient reason grounded on experience, that for the sake of form, size, or other requisites, a horse and mare may not be united, although both may descend from the same original stock, the blood varied, beside as it must have been in its course, or even should they be full brother and sister. The prevailing opinion on this head will best appear from the following fact: a certain famous mare, the property of a great and respectable breeder, has hitherto been unsuccessful in the stud, yet I fear I have not succeeded in my request, to have her tried next season with an excellent stallion, merely, because he chances to be out of the same dam with the mare, yet their sires stand in those distinguished crosses, the Godolphin and Darley Arabian.

I will now speak of that which appears to me the most probable plan, for superinducing a general improvement in the external form and the limbs of our English horses, upon the principles already discussed, all that is wanted to render them complete.

The first step undoubtedly is, for our great turf breeders and landholders to take the lead, not confining themselves entirely to breeding for the turf, but setting the best examples to inferior breeders, by an annual exhibition of specimens of every variety of the English *nag*, bred from selected stock, and according to the truest principles in their judgement. I have too often expatiated on the advantages accruing to the nation, from our numerous agricultural societies, for a repetition to be necessary here; and shall only say, that I believe these societies to be also the best means and conductors of that improvement which is my present theme. Many of those societies have already been long and laudably engaged in this way, as far as relates to cart horses, their attention would be at least equally useful, with regard to the other varieties of the horse, for which no possible substitute can be found; and the magnitude of importance in the subject, deserves a thorough, unremitting, and precise attention.

New motives, an additional stimulus to action, are wanted for the common breeders of horses, who are at present perfectly well satisfied with breeding a large horse, and obtaining a large price for him, the correctness of his form, or whether he go right, or wrong end foremost, making the smallest part of said breeders consideration. And happily, there are motives which will stimulate men to new and beneficial action ; such as the example of superiors, the reason of the thing made plain to every comprehension, emulation, reward, the thirst of distinction. *Ilæ tibi erunt artes*. Such are the tools for patriots, labouring in the service of their country, to work with ; new ideas, and reflections may, and have been propagated, with new breeds of cattle, and new practices of husbandry, in minds which never reflected before. The enticing farmers from their secluded haunts and indolent habits, and collecting them in societies, where they had the opportunity of hearing that there were other practices beside their own, and of being convinced that such, although to them novelties, might be deserving of their attention, have laid the foundation and reared the superstructure of our modern agricultural and veterinary improvements ; it is time that this of which I speak, should have its due share of attention.

The French have of late years formed societies in different parts of their country, with this view, and premiums have been instituted for the best shaped horses for various purposes, not however with any great encouragement to proceed, there being but little information, I apprehend, on such subjects, in that country. I have long been of opinion, that a liberal distribution of premiums in all our horse districts, would have the best effects, and that it might be highly useful to establish horse shows in the metropolis, upon the plan of the cattle shows. This last indeed, was brought to my recollection, by Mr. Longman, M. P. for Maidstone, who at Lord Somerville's cattle show, remarked to me, he thought, considering the immense numbers of bad horses with which the public stables are crowded, that a horse show, with premiums, was equally necessary. I must candidly own however, that having proposed the subject to several persons of rank, and to Mr. Tattersall, they did not altogether concur in the probable utility of horse shows in London; Mr. Aldridge of St. Martin's Lane, on the other hand, inclined to think, they might contribute much to the desired improvement, of the necessity of which he expressed himself fully convinced; adding in an appro-

priate style, 'the best English horse now is an Irish one.'

The plan and organization of a society for animal exhibition, being so familiar in this country, it is scarcely necessary to repeat, that the funds must be raised by subscription and by admission money, and that a president would be required, in the person of some Nobleman or Gentleman breeder, or concerned in horses, to continue in that office three years. The premiums to extend from twenty to fifty or even four-score guineas, and their adjudication to be intrusted to an equal number of horse-breeders and dealers. The situation of the show to be as central as possible in the metropolis, time of the year, the spring, the best adapted period of which would probably be, the three or four days immediately succeeding Lord Somerville's cattle show, from the obvious convenience to country visitants to have the two exhibitions together.

ARRANGEMENT OF PREMIUMS.

For the best shaped hack or hunter.

For the best shaped coach horse, of the first class.

For the best shaped horses for the various purposes of quick draught.

For the best shaped stallion to get hacks, hunters, and horses for quick draught.

For the best shaped brood mares for the above purposes.

The above is merely an outline, which may be varied into any necessary subdivisions; the grand object, attention to correctness of form in all. The effect would be an assemblage every year of the finest nags produced in the country, and the plan being successful, the pleasure and profit of gradual improvement. Those who are ambitious of possessing horses of the highest form and qualifications, would have a certain resource for purchase, and the possessors of such the most advantageous market, exclusive of the object of a premium. If the show of stallions and brood mares be thought rather appropriate to the country than the Metropolis, at any rate, it might be patronized with effect by country societies.

Were such prices as the following given in consequence of superior shape, by no means always the case, it would surely be the only stimulus needed by the breeder. Intelligence from the late Horncastle fair states, that five horses there purchased, were sold to the Prince of Wales at one thousand guineas. That no capital hacknies could be bought under one hundred and fifty guineas each; and that such

was the demand for all descriptions, particularly those calculated for military service, that nearly all the purchases made at Horncastle, were resold in a few days to great profit.

SMITHFIELD.

This topic found its way incidentally, into the first volume, where, p. 167, the reader will see my prediction relative to the removal of the market, which has been lately fulfilled. An additional market however has been established at Paddington, which, considering the comparatively small quantity of cattle furnished to the Metropolis, by the western and southern counties, is a very trifling, or no relief at all to Smithfield. Nothing has occurred to induce me to change a tittle of my first opinion of the necessity, the propriety, the common decency, not only of removing the market for live cattle, from a populous city, but also of the slaughtering houses, the custom of using which, in any town whatsoever, must disgrace a people which does not consist of ignorant savages.

On discoursing the subject of removing Smithfield market, with a common council man, he told me, with becoming decision, that no man but a fool, could entertain such an

idea; for, continued he, why do men submit to be cooped up in cities, but to get money, the grand object? True, my friend; but they whose pecuniary feelings are interested in confining Smithfield market to that spot, bear about the same relation in number, as that spot does in magnitude, to the rest of the metropolis; and the removal is grounded on principles of lawful expedience.

My reader has been informed by the periodical prints, that Sir Joseph Banks, a patriot ever on the watch to forward measures which may tend to the public interest, introduced the proposal for the removal of Smithfield market, at the last year's cattle shew, when it was patronized by Lord Somerville, and the whole body of landholders, graziers, breeders, salesmen, and butchers assembled, and by a considerable number of Smithfield residents; Sir Joseph Banks remarked, that the extent of the market remained the same, as in the days of William the Conqueror, notwithstanding that cattle, sheep, and pigs were now annually sold there to the amount of five millions in value. The Right Honourable Baronet might have said with the utmost truth, that the present is not a twentieth part of the extent of Smithfield, in those early days; and in perfect unison with the absurd and *bizarre* feelings of the op-

ponents of removal, the dimensions of the market have contracted in a ratio with the enlargement of the metropolis!

I shall take leave to remark, that this subject was not afterwards debated with that gravity and attention, which its real consequence demanded, and that the project was dismissed, from an undue complacence to petty and contemptible private interests, so often the bane of public spirited measures. It is but just however to acknowledge, that the application to Parliament was premature, in respect to the uncertainty of obtaining a fit place for the proposed new market, an error which will doubtless be avoided on a future occasion.

From about the year 1777, I have been in the occasional habits of visiting Smithfield market, either on business, or from motives of observation; but my opinion on the present subject has been materially formed on the judgment of my old and worthy friend Mr. Justice Cotterill, whose experience will be universally acknowledged. I have before me a letter from Mr. Cotterill, inclosing a copy of one by him sent, Jan. 10, 1809, to the Lord Mayor, his particular friend, both which at large, on account of the spirit of humanity and real utility which breathes through them, are highly deserving of a place here, could I possibly spare

the room. The substance of them hereafter follows.

After touching on the damage received by the various species of live stock from defect of accommodation in Smithfield, and the dangers incurred, both there, and in the metropolis at large, proceeding to the topic of humanity, Mr. Cotterill observes to me, I know you feel for all animals, which are unnecessarily pained by the damned cruelty of mankind, and have, on every occasion in your power, endeavoured to prevent it. A particular instance of cruelty, is the necessary result of want of room in Smithfield, on every full market. Forty or fifty oxen are driven into a heap, and their heads being forced as close as possible together, the points of their horns are liable to be constantly running into the eyes or other parts of each; to bring them into this collected state, requires much abuse and beating about the head, a barbarity which must be repeated in order to separate them, every time a butcher wants to handle the fore quarters, and again when it becomes necessary to turn out those which are sold. Thirst is another cruel infliction upon the cattle, more particularly during the heat of summer; perhaps after having been stinted on the road, they are tied up from twelve to sixteen hours at market,

without a drop of water, a deprivation, which, it is supposed, greatly contributes to that wildness and fury which seizes on many when let loose.

Mr. Cotterill proposed to the consideration of the Lord Mayor, the removal of Smithfield market to a spot selected by *De Lolme*, who I have been informed, about thirty years since, published a tract on this subject. The scite is on the northern side of the road leading from Islington to Battle-Bridge. Maiden-Lane to be the western boundary of the market; the acclivity towards the White Conduit House, to be the eastern; the intermediate space being about four hundred yards, with a boundless scope of country to the northward, assuring the advantage, of not being in a few years probable to be inclosed by buildings.

The far greater proportion of oxen and sheep for the supply of the metropolis, is driven from the northern counties, those furnishing probably an equal or greater quantity of cattle than the aggregate of all the rest of England. These are rested, the evening preceeding the market at, and in the vicinity of Islington, that is to say, in immediate proximity to the very spot proposed for the new market.

Cattle from the western counties would be driven by the Marybone road, entering the

new market by Maiden-Lane, instead of their present dangerous rout through the streets of London; those from the eastern by Bethnal Green and the City Road, entirely avoiding the streets; the southern droves, being under the necessity of crossing the town, so long as there shall be no market on that side, would yet have the narrowest part of London to cross, with the choice of Goswell Street, St. John's Street, Bagnigge Wells Road, and Gray's-Inn Lane.

Purchasers residing in the east, west, and northern parts of the town, might drive their cattle home by the City Road and New Road, the cattle proceeding by the streets nearest their places of destination, instead of being driven entirely through the streets to the two extremities, to the infinite annoyance and danger of the inhabitants.

Troughs to be fixed for a supply of water to the cattle, the expence of which is beneath notice in so great and important a concern, and when both humanity and profit are taken into the question.

In the extent of the ground to be purchased, a prospective view to be had to the improving state of agriculture, the cultivation of waste lands, and increase of cattle necessarily consequent on the progressive demand, which must

be expected from the vast advancement of population in the metropolis. Hence the expedience of obtaining in the first instance, a quantity of ground considerably beyond the immediate demand; which would be sure to advance greatly in value, and the surplus might be let to tenants at will, to be resumed when wanted.

From motives of humanity and safety, no beast ought to stand loose in the market, and a clause in the proposed act is absolutely necessary, to compel the tying up and confining every beast exposed to sale; and also for the complete separation of every distinct species.

Such were Mr. Cotterill's sentiments, previously to the public agitation of this question, and in a farther and very important particular, I also most heartily agree with him. Observing on the possibility of so strong a future opposition to the removal of the market from Smithfield, as to render the measure impracticable, he recommends an application to Parliament, by the country interest, joined with that in the metropolis, entertaining congenial sentiments, for a new or competition market, on the spot already mentioned, to be named New Smithfield. Ample subscriptions would no doubt be raised for such purpose. Indeed putting every idea of humanity beside the ques-

tion, the interests of both town and country loudly demand an increase of market room; and with respect to the latter, it is often absolutely impossible to show the cattle to advantage, or even to find place to shew great part of it at all, a heavy disadvantage to the proprietors of cattle from the distant counties.

It is however to be hoped, that the renewed application to Parliament for the removal of the market, will be attended with success, and that the party in the city, which was lately averse to the measure, having since had time for more mature reflection, will attend to the arguments of the patriotic Alderman Wood, to whom this cause of humanity has from its commencement, been so essentially obliged. Neither the pecuniary interest of a few inhabitants of Smithfield, nor the extreme delicacy and fastidiousness of a small number of residents in the vicinity of Gray's-Inn Lane, will surely continue of paramount consequence to the interests, safety, and convenience of the mass of inhabitants of the whole metropolis, to those of humanity itself. As a resident in the environs of the town, and a frequent perambulator of the streets, I must acknowledge myself in that degree, an interested pleader. A few years since, in the neighbourhood of St. Martin's Lane, with well

timed agility, and more presence of mind than is usually at the command of the studious, at least of myself, I avoided the horns of a Highland Scot, apparently as sharp as a dirk. I won, I should conceive, by less than half a yard. The year after, my wife, in an advanced stage of pregnancy, had a very narrow escape from an over driven and frightened animal of the same description. Such examples however, of inferior folk, will be thrown quite into the back ground, when I can add, that at about the latter period, a maid of honour was actually tossed, and at the extreme risk of her life, by a *mad* ox; the meaning of which designation is a poor, pitiable, frightened animal driven by inferior brutes, or mad men, through the crowded streets of a populous city, collectively mad enough to permit, or submit to such brutal insanity.

ACCIDENTS—STAGE-COACHES.

See Vol. I. p. 164, 398 and elsewhere. I laid particular stress on the danger of driving restive horses, in the public carriages, and the suffering horses to stand on the road without a guard at their head, stating the consequent accidents within my knowledge from both practices;

since which gratuitous and meddling cautions of mine, such accidents have increased, to the cracking of a few bones, and the diminution of a few lives, which might peradventure have been lost soon after in some worse mode, kindly and opportunely making way, in these populous times, for others who may be earnestly desirous of becoming successors: as if I could not have eaten my pudding, held my peace, and taken care of mine own carcase. In this affair of precautions, the great and respectable majority seem ever to have uppermost in their minds the old precept, not to buy gold too dear; viewing safety as the gold, few are willing to secure it, at the expence of present ease and convenience. Such being the case, it is too plain, that stage coach acts, whether framed by Mr. Gammon, or any other well-intentioned legislator, can have but circumscribed good effects. There are even people who think it extremely hard, that they cannot have the privilege of breaking their own arms, or legs, or necks, as they see fit, without the impertinent interposition of the legislature, and I actually heard a fellow on the roof of a coach, exclaim, that he would be d—d if we was *gammoned* in that way; he wanted to get home as well another man. Now all this is perfectly right with respect to the majority, but not quite so right,

that they should possess the power of breaking the necks of the minority also.

I shall yet be fool hardy enough, to venture a few more speculations for the encouragement of the minority, or of those who have a due and reverend care of their outward men. And first as to the efficacy of those legal regulations, made and provided for the safety of travellers in our public vehicles. I have mislaid an abstract of the acts, but I believe they turn upon number of passengers, and weight carried aloft, solely ; granting this to be correct, I think such legal provision cannot be efficient, or go to the root of the evil, because in this country, expedition has long been the order of the day, in travelling, the paramount object, inducing a necessity of the lightest possible carriage, which will stand under the given weight. At the same time, the number of our travellers is increased to that degree, and the stage coaches are so loaded within and without, in front, aloft, and in the rear, as to remind one of that place, which is sometimes supposed to be so full, that the Dutchmen sit with their legs out of the windows. Thus two very incompatible objects are equally the aim, to obtain the lightest possible carriage, and to load it with the heaviest possible weight. The consequence is, coaches are frequently so over-

weighted, with relation to the sufficiency of weight in the vehicle itself for its own support, that there is real danger of the *equilibre* being lost, and of an upset, from the most trifling inequality of surface in the road.

The reader has already been cautioned in this work, that I make no pretensions to mechanical knowledge, but I am here speaking to incontrovertible facts, daily occurring to the observation of all, whose senses are sufficiently disengaged. Examples I could give plenty, had I equal plenty of space, since I have for some years, kept a register of accidents, which indeed would make a handsome volume, with the appropriate decoration of engravings, and might be very aptly intitled, the 'Theory and Practice of Neck-breaking made easy to the meanest Capacities. The grand points in this question, are, the cupidity of the proprietors of coaches, the lightness of their vehicles, the carelessness of their coachmen, and the stupidity or the temerity of their customers. I shall give an illustration or two from my own experience.

A few years past, I had occasion to travel by the coach, about forty miles from the metropolis, and made choice of the box for the sake of the coachman's conversation, and perhaps from an additional motive which the reader will

easily suppose might have weight with an author. With respect to the number of passengers withoutside, I did not observe that the coach was very heavy laden, which however I afterwards found to be the case. There were four horses, and although in good condition, I was astonished that they seemed distressed, and to need a very sharp application of the whip, to compel them to climb the very first ascent, that of Westmister-bridge. I then perceived what kind of a load we had, and the nature of the morning's task of this poor set of horses, which had a whole stage to perform at the usual rate, although unable to climb the first ascent without the exertion of their full powers. This brought on a discourse between the coachman and me, in which I failed totally in my attempt to convince him of the propriety of employing six horses, when four could *possibly* suffice, his being the old West India principle of the superior profit of wearing out labouring beasts quickly, getting your pennyworth out of them, and replacing. About mid-way of the stage, the road had been mended in the centre, and was extremely rough with large and sharp stones, notwithstanding which, the coachman whipped his horses through it, with difficulty enough, leaving on each side fair and ample coach room. On expressing my surprise at

this choice, he replied in a low tone, you don't consider, we have got at least three ton weight to carry, so I understood him, and though there seems to you to be room on either side, a little unevenness of the ground might occasion an accident I must own, that if the reins had been in my hand, I should unwarily have avoided the centre of the road. This caution I have since frequently observed. Upon the next dead pull over a similar piece of road, the near leader swooned on his collar and fell. I, seeing some probability of an upset, took my jump and landed with only the inconvenience of a rather rude concussion. The horse was raised and driven on several miles farther, the coachman expressing the utmost surprise at some symptoms of compassion which escaped from me. It was a thing of which he had heard the name.

Two or three years since, the horses of a stage coach, being left to themselves, ran away and upset it. There was one, I believe, a military gentleman within side, who jumping out, whilst the horses were on their career, fractured his skull, and soon after perished. Within about three weeks afterwards, I travelled the same road, and the coach stopping in a street, the horses, four fine ones, were left intirely to themselves. No passenger, myself

excepted, seemed to notice this, and on my remarking to the coachman, the fatal accident which had so recently happened on the same road, he replied coolly, with a face of recollection, that he had heard of some such thing.

In the course of the present summer, a stage coach broke down, either from the linch-pin of one of the wheels starting, or the immediate breaking of the axle-tree, from excess of weight in the load. Many fractures and much mischief ensued among the passengers. I soon after travelled the same road, on the roof. The coach, laden to such excess, with both live and dead lumber, that even a mouse trap additional would have been an incumbrance, sat off in a town roughly paved, and I could clearly perceive in the care and circumspection of the coachman, that the most level surface he could possibly select, was absolutely necessary to the safety of his charge. He proceeded at a very slow rate, and every corner was turned with the most deliberate sweep. Nevertheless at the stones end, some more luggage offered, and the temptation was too great to be withstood. On this the patience of a gentleman within side was exhausted, and he insisted, that neither another passenger, nor a pound additional weight should be admitted, declaring, that with the present weight,

the coach was in very obvious danger either of an upset, or of breaking down. I joined him in this remonstrance, but we stood alone. There was a number of young men, not of the lowest class, on the box and the roof, who declared such fears were ridiculous, and that the more danger, the more honour, the coachman himself most philosophically observing, that it was a silly thing to think of danger beforehand, as it was enough to think of it when it came. I demanded of him, whether he were not apprized of a legal regulation in the case, on which he joked, pretending to be ignorant of it, and joining with the young men in the sentiment, that both the law and custom were to carry as much as a stage coach could possibly stow, and —, the more the merrier. In fact, the minority, to which party it is my usual fate to belong, on most subjects, was completely silenced, and we were entertained throughout the journey, which was safely performed, with very keen and pertinent observations on the folly of meddling reformers, and how much more proper it was, for every man to mind his own business, and to let things take their natural course. People who thought otherwise, Mr. Coachman shrewdly remarked, ought not to travel in stage'coaches. He drove with unceasing vigilance, his eye constantly glanc-

ing at one or other wheel, and apparently with considerable anxiety. It appeared to me nearly even betting, stand or fall ; but I consoled myself with the idea, that my birth upon the roof afforded the best chance in case of accident.

The above description, I believe, may be applied generally without fear of incorrectness to our public travelling system, and I submit it to those gentlemen who are desirous by farther legal provisions, of serving the cause of humanity, and of safety to the lives and limbs of those, who are under the necessity of travelling in stage coaches. The probable result is, that a mere restriction of the number of passengers without-side, granting such to be observed, would be essentially inefficient; and whether to regulate and limit the total weight, by the number of horses, would have a more radical effect, I am not at present qualified to judge. The matter is however most truly an object of legislative interference, since nothing can be more evident, than that the personal safety of the people ought not to be put to wanton risks, in compliance either with foolhardiness on one side, or commercial avarice on the other. For proofs of real danger, look to the chapter of accidents in the newspapers of the day, and to the loaded vehicles themselves!—and let the ob-

server reflect that in those, he may have to intrust the safety of a husband, a wife, or a child. Coaches may be frequently observed passing the streets of the metropolis so weighted, that the interposition of a tolerably large sized stone, would be sufficient to throw them off their balance, and the danger must be obviously increased, in the too frequent case of insufficiency of number, or power in the horses. Our travelling upon the public roads, ought to be reduced to a scale of greater safety.

Yet the matter, it must be confessed, is full of difficulty, since laws of regulation can do little, without the co-operation and punctual observance of the people, ever a very poor dependance where their interests, or their desires are in the opposition. For example, a man or woman, bent on a journey, twenty or thirty miles from home, and eager to return, will incur any risk for the sake of a passage. Indeed it approaches very near to a jest to administer cautions to a people, the one sex of which seems of late years, as highly delighted with being burned alive, as the women of Hindustan, whilst the other is equally attached to the sport of having their fingers, arms, or noddles, shattered by the bursting or accidental discharges of guns. Such a day, a lady's dress caught fire, and she lies without hope of recovery.

The gun of Christopher Trueaim, Esq. chanced to burst, and his hand was shattered to pieces. Tommy Dandy took up a pistol, unconscious that it was loaded, and presenting it, did great execution in the family. A certain stage coach overthrown, one man had his back broken, another his ribs, arms, or legs, another was killed out-right. I put no notes of admiration to such common place occurrences, almost of as quick succession and little import, as the defeat of armies and the loss of kingdoms. But I can a tale deliver, which surely deserves some marks of admiration. About the year 1770, at Ipswich, I was told, as an undoubted fact, by a man who personally knew the parties, that a farmer near the river, actually shot dead, both his father and mother at one shot, with a shore gun, and was, within six months afterwards, seen at the sport of shooting!!! Talk of precautions, when I have seen the brink of an abyss of burning lime, left entirely without a guard, and have heard of a poor child falling headlong down, and being consumed to ashes in such a real hell, of which, predestination apart, one must surely be deemed enough, even by the most tenacious of that effectual species of purification.

As to proprietors of coaches, and their drivers, their business is to get money, the

prime concern of life, and never more fashionably so, than at the present time—not merely to take care of the lives and limbs of their passengers, which is the after-concern of the surgeon and the doctor, and our coach-folk would scarcely be so impolite, as to interfere in other men's concerns. Besides, why interest themselves needlessly and obtrusively for the safety of those, who appear to have no solicitude for their own?

To treat this matter seriously, as it really ought to be treated, a heavy responsibility naturally attaches to the proprietors and drivers of our public coaches. Their default may be at once a deprivation of life, or an abridgement of its comforts to the end, by the fracture or loss of limbs. The law indeed decrees heavy fines in such cases, but the care of the public itself, ought to extend more to prevention. It is indispensable to the public safety, that a coachmaster never be allowed to employ improper horses, carriages insufficiently substantial, or coachmen of light and dubious character, or addicted to drunkenness. A coachman ought to be a rigid disciplinarian, and never to omit the important duty of inspecting with his own eyes and hands, every part of his tackles, whether appertaining to carriage or horses, previously to setting off, and at every stage, and his

encouragement should be liberal, for the duty is constant and severe. We have at present many steady and skilful men in this line, or accidents would be infinitely multiplied; and we have also had many of the opposite description. I was informed by the coachman first alluded to in this section, that on the commencement of the mail-coach plan, either from a real want of able drivers, or of due encouragement to such, those coaches were intrusted to a parcel of giddy headed boys, without either skill or character, and that such was the source of most of the accidents of that time. He also related to me the following story on his own knowledge. After certain efforts at improvement, the mail-coach construction was boasted to be such, that an overturn was almost impossible. One of the drivers above described, hearing of this, swore in the hearing of my informant, with all his most flash and fashionable oaths, that he would overturn his coach that very night, in spite of all their boasts. Accordingly he, and as I recollect, his postillion, both drunk, exerted themselves to the utmost of their power, by driving at full speed around every corner in the stage, but with what success, I have forgotten. Another coachman assured me, that the two postillions who occasioned a late fatal

and deplorable accident, were the most profligate rascals in existence, the very scum of the road, and had years before committed atrocities deserving of the gallows.

SHOEING.

See 11th Chapter, Vol I. and Vol. II. p. 10. The improvement of this branch is generally diffused, but to the greatest degree in the metropolis, where the best shoeing is as nearly as possible upon the principle and plan, which Osmer bequeathed to us. I am aware of no useful novelty; and our pretended new discoveries have gradually died away, leaving only this impression among the keepers of horses, that the authors of such have occasioned much temporary mischief and confusion of practice. The great consequence of preserving the sole and frog from the butchery of former times, seems to be making its way gradually, and in the mode of all the useful truths; I nevertheless, last year, met with a very striking exception. On purchasing a nag from a very considerable London dealer, I found it was the practice at his stable, to pare away the sole and frog, in shoeing, to as great a degree as it has ever been done within my

remembrance, and such practice was strongly recommended for all kinds of feet, by the most intelligent person I could find in the stable. The horse which I tried was three parts bred, and had feet sufficiently delicate; they had nevertheless been pared so nearly to the quick, that he flinched under me, upon every piece of rough ground, and riding him purposely with a loose rein, I was amused at the anxiety of the attendants, lest the horse should come upon his knees. It is probable, his feet had received only one course of this beneficial paring, or they would not have recovered in so short a time as they really did, from a still more beneficial non-paring. I have lately seen shoes from various parts of the country, with the old broad and convex surfaces, and upon such, the poor cart horses of London, still too generally slip and slide away their wasted powers.

INCENDIARIES.

See Vol. I. p. 430, on the vulgar cant about MONOPOLY AND FORESTALLING. The following paragraph I have just read in the County Chronicle. “A short time since, Mr. Joseph Lacy, a maltster; Mr. Bright, a farmer

and maltster; Mr. Josling, a linnen draper, and other wealthy inhabitants of Braintree and Bocking, in Essex, received threatening letters, stating, that if the price of bread and provisions in general, were not reduced, their corn-ricks, &c. would be set fire to; and they actually carried their threat into execution, for the straw house adjoining the malt house, belonging to Mr. Josling, was discovered to be on fire a week after, which, fortunately by timely assistance, was prevented from burning the malt-house. By a well laid stratagem, it has been discovered, that a school-master of Braintree, and a journeyman taylor of the same place, were concerned in writing and sending the letters. They were taken before the Rev. John Thurlow, and several other magistrates assembled upon the occasion, at Braintree, when the evidence produced against them, was sufficient to induce the magistrates to commit the prisoners for trial."

To what I have before said of the delinquency of too many of our public prints in this case, I have a curious addition to make. A certain party among us, with high pretensions of aversion to the principles of the antimopolizing and anteforestalling gangs of Marat and Robespierre, have during a number of years, yet strenuously adopted their tyrannical

and Turkish opinions of political economy, and these may be observed current, as if by general consent, through various publications of a certain stamp. The animals of obnoxious proprietors, generally come in for their share of the barbarities inflicted by those, who seek to reduce the price of provisions, by consuming them with fire.

REMINISCENCES.

I shall here take the liberty of pressing upon the recollection of the reader, certain specific objects of improvement in the view of humanity and convenience, which I originally and anxiously recommended, and which I flatter myself will be found to possess a claim to consideration.—

EARLY DOCKING and CROPPING, where the latter may be held indispensable, Vol I. p. 292. The advantage of light or racing weights, in TROTTING MATCHES, Vol. I. p. 354.—Of making a handsome CANTER and LEAPING, part of the education of the colt, Vol. I. p. 355.—Of teaching the cart colt to back and go in the shafts, Vol. I. p. 418.—The selection by post-masters of LIGHT WEIGHTS, and the permission of travellers, subject to their convenience, for the post-boys to ride upon the SPLINTER-BAR, a practice

which ought to be invariable with all returning chaises. A light seat should always be affixed to the splinter-bar, one instance only of which I have yet seen, although in conversing lately with post people, I found them fully sensible of the advantages that would be thence derived to the horses, occasionally freed from carrying, whilst drawing weights, Vol. I. p. 408.

—The LOOSE STABLE OR STALL, Vol. I. p. 459.

—The use of a LEATHERN GUARD around the knee, either as a preventive, or defence to a broken knee, Vol. II. p. 344.—Rules for the farrier in SHOEING, Vol. II. p. 11.—Cautions against HORSE-STEALING and STRAYING, Vol. I. p. 540.—Encouragement to VETERINARY SURGEONS of regular professional education, *passim*.

My marked recommendation of PUGILISM, Vol. I. p. 205, has been since honoured with the sanction of some of the most eminent characters of our country, and my sentiments promulgated under names possessing that consequence and weight in which my own is totally deficient. It has been said in the Senate and most justly—"We must choose between the fist and the stiletto." To the gratification of my most earnest wishes, the practice of boxing has been still more generally diffused, and without the old accompaniment of barbarous

infliction on brute animals under the gross misnomer of sports. The character of the pugilist has been humanized and rendered intelligent, an effect which surely ought in great measure to be attributed to the countenance and society of the upper ranks. Indeed since the days of the savage and sullen Broughton, whom I personally knew, we have had men of this class demonstrating in their conduct, humane, generous, and peaceable dispositions. I also knew the Suffolk champion Hugh Wright, unfortunately killed in a playful scuffle with his youngest brother, about the year 1770.—Hugh, with the frame of a giant, and a most appalling countenance, held in his capacious bosom, a compassionate heart, inclined to all the sociable qualities. Johnson bore an excellent character, and as I have been informed by his master, laboured in his calling of a porter, to support the widow and children of his friend. William Pearce, distinguished by the name of the Game Chicken, had a heart warmed with noble and elevated feelings, which even his dissipated habits of life could never deaden or suppress. His combat with Belcher in 1805, ought to immortalize both British pugilism and the name of Pearce, which I at this moment embalm with tears of exultation. In the 12th round — “The

Chicken went in and rallied furiously, and it was evident, Belcher had fallen off in strength; he had materially the worst of the rally. The Chicken closed and threw Belcher on the rope, and had a fair opportunity of ending the fight; for Belcher lay balanced upon his back, and had the Chicken given him one of his death-like blows, he must have been killed. Instead of which, this truly English Chicken, putting himself in an attitude for striking the blow, and looking around the ring, with a countenance in which shone a mingled sense of justice and compassion, exclaimed, *Jem, I wout take advantage of thee.* I should have been proud, had it been in my power, to adorn my book with a picture of this battle. Pearce signalized himself also in the revival of the age of chivalry, as a champion for the fair sex. He delivered a forlorn damsel from the lewd gripe of three game-keepers, whom he discomfited and put to flight. And in 1807, at Bristol, he rescued another young woman from perishing in the flames, at the extreme peril of his own life——

At length, upon the neighbouring house-top seen,
A gallant youth now hastens to her aid,
And o'er the fearful parapet does lean,
With spirit dauntless to assist the maid;

Endow'd by heaven with more than common might,
He grasps her arms, and draws her to the height.

O glorious act! Oh! courage well apply'd!

Oh! strength excited in its proper cause!

Thy name, O Pearce! be sounded far and wide—

Live ever honor'd, 'midst the world's applause!

Be this thy triumph!—know one creature sav'd

Is greater glory than the world enslaved.

ANON.

Mendoza, whose name has been so long and universally celebrated, had last year honourable mention in the public prints, for his humanity in the behalf of a strange girl, whose unfeeling mother he took before the magistrate; a troublesome office, from which the humanity of most would have shrunk. If I have nothing to say in the praise of Gulley, the present champion of England, I trust it is because I do not know the man. The company Mr. Jackson keeps, ought doubtless, to be a voucher for the respectability of his character.

The above facts will prove, that all our boxers are not a set of brutal profligates, whose only gratification lies in aggressive and insolent actions, in devouring living cats, and torturing to death of innocent animals; and will leave no doubt of the force of good examples, upon the whole class. Sparring academies in the metropolis, have been long winked at by

the police, and boxing matches are *suffered* in the country, but often attended with obstruction and inconvenience, in the necessity or expediency of which, I cannot concur. Such playing at fast and loose, is not confined to boxing, and consists neither with the dignity of the law, nor the freedom of the people. I would far rather see a regular subscription pugilistic theatre reared in London, upon a handsome SCALE, and regular professors established at respectable salaries, where our youth of all ranks and degrees might, according to the prices they were respectively able to afford, be duly initiated in the old British science of manual defence, be grounded in the duties of true British humanity, and also be assured of an *arena* on which to decide with native freedom, their unaccommodated differences. I would have boxes, pit, and gallery, at a moderate admission price. I should not at all be surprized, if such a plan were to reduce the number of battles, by withdrawing the public taste from serious boxing to bloodless sparring, to which also the practice of betting might attach.

I had, however, no success in my former similar proposal for Paris, Vol. I. p. 211. The attempt, I am informed, having been made, not indeed by Mendoza, but some other English

professor. But the season of peace was lamentably short, and boxing perhaps an insipid novelty to the martial French, who have such a horrid penchant for steel, as the late bloody duels among our prisoners of that nation, have too fatally evinced.---Knives, razors fastened to sticks, points of compasses---gracious heaven! Yet these weapons of necessity were fairly and openly used, according to the laws of regular combat. Such painful examples, but still more the rare and unkind assassinations of less generous and enlightened people; together with the foul play so disgraceful to ourselves, still too prevalent in one part of England, ought to be the most powerful incitements to us, to countenance that practice, which has been the groundwork, and must still be the preservative of our superior national humanity.

THE RIGHTS OF BEASTS.

About thirteen years since, on the first edition of this work, Vol. I. p. 131, I proposed the recognition by the legislature, of the *jus animalium*, or the right of beasts to the protection of the law, on the ground of natural justice in the first instance, and in the sequel, on that of expedience, regarding both humanity and profit.

It was then said, that no similar proposal had previously been made in this country. Since the last edition, in the beginning of the year 1808, I repeated this proposal in the Monthly Magazine, Vol. 24, p. 539, pursuing the subject of humanity to brute animals, in various lights, as it affects the human mind, adducing practical examples, and explaining the most lenient methods to be used with animals, in the necessary deprivation of life. I beg leave to refer the reader to those essays.

I was well aware of the suspicion, and even odium, which must inevitably attach to the man who should presume to broach such novelties; thereby attempting to increase the already too burdensome and fatiguing duties of human life. But I trusted, perhaps too much to the sincerity and goodness of my motives, which were those of conscience and perpetually wounded feelings. Indeed, and why should I be ashamed to acknowledge it, the sufferings of men and animals are to me a source of never ending mercy. I make this appeal to the candour and justice of those from whom I differ in opinion.

With all due respect for the humane motives of those who stated from the press, in a general way, the obligation of compassion and good treatment to beasts, it appeared to me, that

something far more pointed and specific in the case, was required, than the ordinary routine. It was too obvious, that the effects of mere naked precepts, under whatever sanction, or of declamation however eloquent and pathetic, were weak and transient, and even often tending, from superficial or erroneous views, rather to injure than promote the cause of humanity. Inveterate custom, which bars all reflection, is the grand source of cruelty towards brute animals. Persons of the strictest religious habits, and the external demonstration of a correct morality, if they do not personally commit any flagrant acts of cruelty, yet live in the daily observation of the whole mass of such, with an apathy and contentedness evincing their total unconcern. The education of their children in an absolute ignorance of the rights, and disregard for the feelings of the beasts beneath them, is but too strong a proof on the same side. Even those with naturally compassionate hearts, and inclined to justice, may be habitually, both unjust and cruel, through want of reflection, or from the prevalence of systematic errors. It was necessary to instruct men that such a duty existed, as that of shewing justice to a brute beast, and many will start with astonishment at the actual application of such a principle. The desideratum appeared to be, an analytical and

practical developement of the duties of man towards the inferior animal creation; to furnish a system for action, in which, from a sound discrimination, might result the closest possible union of justice, humanity, and expedience. This I essayed to furnish, presuming myself not unqualified, as well from a long and patient investigation of the subject, as from constant practical habits. It was necessary to direct appeals to the reason and common sense, as well as to the feelings and passions of men, in order to produce that kind of excitement which leads to radical and useful effects. The success of this mode has been of late years, considerable, notwithstanding too much exception, and very powerful counteractive efforts from that party among us, which is said to seek means of hardening the heart of man, least he should lose his pugnacious qualities, and become too much inclined to peace; a groundless apprehension, against which nature herself has made but too ample a provision.

I suppose I am ‘carrying coals to Newcastle,’ in tendering proofs of the existence of such sentiments, or such a party among us, but proofs are always good things, and it frequently happens, that a proof of the day light shall be required, whilst the sun beams dart upon the eyes of the requirer. In a monthly miscellany of

considerable respectability, we have been lately informed, that “ In these troublesome times, the advantage of every state requires that personal sufferings should be contemplated by the majority of the people, with Spartan indifference. To promote this essential point, our legislature refrains from prohibiting those hardy exercises among the vulgar, which familiarize the mind with animal sufferings, even with animal death. How preposterously incongruous with this patriotic spirit, and how thoroughly calculated to enervate the temper of a warlike people, are those penal statutes, which represent personal torture as the acme of human suffering, and punish the most desperate violations of social order with death, which it should be the object of government to represent as contemptible in the esteem of the public at large.”

Amongst my various correspondence on the subject of these volumes, I have a letter before me, which was put into my hands in February last, by an artist with whom I have some present connection. The letter was addressed to me by a gentleman of Newcastle. This correspondent seems to repine, that my political sentiments do not exactly tally with his ; and on my part, by way of answer, I regret, but without repining or surprize, that his politics do not

agree with mine. He expects that my sentiments should be entirely changed by the course of events subsequent on the French revolution; sufficient evidence to me, that he has not only as well as so many others, misunderstood my sentiments, but the general question. Indeed, my principles were ever in the direct line of opposition to the notions of those, who sought to propagate liberty at the point of the dagger, and by the slavery of coercion.

He proceeds to defend cock-fighting, but on a stronger principle *now*, when he can wink at the *otherwise* barbarous custom (which he dislikes) of bull-baiting. Courage is not the lot of all, but it may be acquired and practised by analogy. The man who sees his cock win a hard fought battle, or die fighting, or who sees his dog pin a bull to the ground, even with bleeding entrails, feels a stimulus to bravery from the act of his feathered and hairy champions, and will keep up that otherwise unfounded, though political idea, now so necessary, that one Englishman can beat three Frenchmen!

Thus we see, from the above sentiments, and by the far greater latitude given, in more important respects, to the principle on which they are grounded, that the well-known position of certain ancient sophists, has its full practical

force in these religious times : “ There is nothing just in itself, customs and usages make justice.” The savage can form no clear conception of any general moral obligation which does not tend to his own immediate profit, and such a feeling has too often taken the lead in civilized society. The tortures of unoffending beasts being held necessary to the gratification of hardness of heart in man, or its promotion, justice need not stand in the way, for since *justice is the mere creation of forms and usages*, it may be just to expose beasts to torture. The life of a man granting him innocent, being demanded by public exigence, I need not be more pointed, who is there in these days of purity, of such an unfashionable moral, as to disclaim the sacrifice ? But which is he among these just moralists, who would choose to fit the garment upon himself ? Some how or other, it hath never been my fortune to light on any of these just and good, and polite people, who did not appear to me probable to feel the keenest sensibility at any personal injustice which might be offered to themselves. And I dare say, even my patriotic correspondent above, would deem it a most barbarous proceeding, being unfortunately a prisoner to the Hurons or Iroquois, if they should bind him to a stake, and torture him with flaming brands,

notwithstanding the sage plea of those polite and enlightened people, that they so acted with the refined and politic view of steeling the hearts of their brethren, familiarizing their minds with animal suffering, and impressing them with sentiments of eternal hatred to their enemies, and of eternal war. The most strenuous of these advocates for animal misery, as a mirror, through the reflection of which, men are taught to suffer, are I believe chiefly among those, who themselves choose rather to suffer by proxy ; that valiant band, who filled to satiety, with the good things of this life, and hugging in security their firesides, gloat over the accounts of massacre, and burning, and devastation, human and animal misery in every possible form, the usual concomitants of just and necessary wars ! Nay, does not a late writer esteem war an honourable mode of getting rid of superfluous population ? We have had numerous and powerful advocates for slavery—torture ; even the giving no quarter in war, has been more than once recommended by a considerable part of our public press. Who then shall say, that we do not contemplate the personal sufferings, at least of others, with Spartan indifference ?

With respect to the torture of animals on the plea proposed, granting it unjust, it must

beyond question, sanction the principle of injustice; and though this should be deemed injustice of an inferior degree, a more important occasion only will be required, to sanction a still greater degree of injustice, until the summit of the scale be attained. Then, the progress from beasts to men is easy, even imperceptible; and they who are familiar with the tortures of brute animals, will have very little compassion on the sufferings of their fellow men. Thus the miseries and horrors of war may be screwed up, and pitched at the highest key, which our proposers may deem necessary. But granting that we could evade the gross injustice, the despicable, prostrate, and cowardly meanness, of fast binding, torturing, and tearing piece-meal, the bodies of helpless and unoffending beasts, and that we could thereby render the hearts of our populace, as savage and ferocious, as the hyæna and tyger of the desert; what shall we have gained, unless our object be hordes of marauders, calculated solely to depopulate, ravage, and destroy? Cruelty and cowardice have been hitherto proverbially, although I acknowledge not quite so correctly linked together. And who has proved, that bravery is confined to that base scum and rabble, which yells and bawls, and grins securely at inflictions, which they feel not, and would

most probably, the far greater part of them, shrink from, with feminine affright? Real hardihood and contempt of personal sufferings, must be acquired from personal experience, from combats man to man, and from actual warfare, in which, heaven knows, a contempt for all sufferings, both of self and others, is full soon acquired by the soldier. In the mean time, how degrading is it to the character of an Englishman, who is certainly from nature, of the best stuff of which real soldiers are made, to be told that his courage stands in need of artificial and spurious incitements. How disgraceful and pitiful our national vapouring, as if such were necessary to supply the defect of military renown to Britain! It ought to be held, as of old, *dulce et decorum*, sweet and honourable to die, not to *lie*, for our country. The single honourable declaration of the French, respecting the battle of Talavera, is worth far more to us as a nation, than ten thousand lying boasts—" *The English fought well.*" And the softening the horrors of war, in their humane treatment of our wounded committed to their care, is a noble example of civilization and national feeling, both in the army which practised and that which demanded it. It is surely desirable in every just and moral view, to mollify the rugged features of war, whilst it *must* last,

in all possible degrees, and no less, to instil a love of the pacific virtues, into the breasts of Englishmen, who, in the judgment of other nations, have been ever too fond of war, for the quiet and well being of human society.

I exulted at the outset, in our superior national humanity, our aversion to deeds of blood in our quarrels, and the decline of barbarous sports, regretting yet much alloy, the gradual extinction of which, I fondly looked for, in the increase of light, and the progressive improvement of the human mind. There was much light abroad, and a strong disposition in the public mind to absorb it. It was the time to have purified the national character of those relics of ancient barbarity, which disgraced it, to have put a final period to our cruel sports, and to have regulated our popular diversions by the standard of a discriminating humanity. The developement of such a rational plan, however, gave rise to a set of alarmists, who trembled for the fate of ancient prejudices, and the profit to be derived from cruelty! And their exertions have, at least, been honoured with the negative success of balancing the public mind, and preserving it stationary. It is as revolting to my English feelings, to allude to that unprecedentedly numerous, and black catalogue of crimes, with which our public records

have been disgraced, during the last ten years, as it is impossible not to impute the dark parts of our national character, in a considerable degree to those doctrines of cruelty and selfishness, which have been so generally disseminated. An effect which it is totally impossible, could be meditated by those, who have promulgated such doctrines, and whom, very sad and solemn considerations ought to make wary, how they attempt to harden the English heart.

Fortunately for the cause of humanity, and congenially with the general bias of the British character, a strong party has arisen in favour of the just rights of the brute creation, in more customary and intelligible English, of that compassionate and merciful treatment, which it is our duty to extend towards beasts. The press, without the aid of which, all right might be suspended, and all improvement languish, has been employed to a degree of activity, and many excellent writers have exercised their pens on this subject, in an engaging and popular way. The magistracy also, at least in the metropolis, have of late years, with the utmost propriety, assumed a discretion in the case of flagrant cruelty to animals, even by their proprietors, and have ordered summary punishment, an example which ought to be imitated throughout the country. And Lord

Erskine's bill was truly, both 'an honour to the country, and an æra in the history of the world.' For although, from perhaps not being thoroughly considered, it did not pass, there can exist no doubt, from the humanity of the noble lord's character, of his perseverance in the cause, and as little of his exertions being finally acceptable, as well to the legislature, as the public.

It must yet be confessed, that the opposition in parliament to Lord Erskine's bill, had considerable influence upon the public mind, and although a great majority were desirous of promoting the cause generally, there evidently appeared much more of economy than of enthusiasm, in their sentiments, and the apprehension seemed to be extensive of a too great a legal controul over property, and of the danger of vexatious suits. I had anticipated such objections in my original proposal, Vol. I. p. 144, but I must acknowledge, that I had no idea of going beyond the simple recognition of the right of brute animals to the protection of the law, on which I supposed, any flagrant act of barbarity to an animal, whether by its owner, or others, might be prosecuted, the nature of the act, and the punishment, to be left entirely to the decision of the judge and jury. Indeed I looked chiefly to the use

of such an example as the declaration of a great abstract truth, by the legislature, in favour of justice and humanity, forming the groundwork of a general improvement of manners, and giving countenance and authority to those, who should at any time be willing to stand forth the defenders of those creatures, which nature has put into our power, most certainly not to be tortured and abused.

In the mean time, it is worth while to consider, whether there be really any just cause for those apprehensions entertained of Lord Erskine's bill, both within and without doors, and more especially, as there can be no doubt of the bill being again presented to parliament, either in its pristine form, or in some modified state. On the recognition of the principle, Lord Erskine's sentiments are particularly impressive, and entitled to the attention of readers of every class. The intent of the bill is, to make the 'wantonly and maliciously abusing' any of the domestic animals specified, a misdemeanor triable before a jury, and farther to invest the magistracy with a summary power in certain cases. It is to be observed in the first place, that the aid of mercenary informers is totally rejected, which circumstance alone, on reflection, ought to quiet the alarms of all persons at the probability of vexatious prose-

cutions. From the notorious general apathy, and the christian fortitude, with which the great majority of mankind, can always bear the sufferings of others, human or brute, there is too little probability, that prosecutors will be found, even in the most flagrant and abominable cases; never will there be found such, in any of an equivocal description. I appeal to any man of the least experience or observation in this matter. Where are we to look for the description of persons, so prodigal of their time and their peace, as to enter into a troublesome suit, in which they would be sure of nothing so much, as ridicule, contempt, and execration, and from that body particularly, which must ever be most powerful in society? What grand jury would find a groundless or equivocal bill? And if a true bill of *malicious* cruelty were found, who is he, that will acknowledge his regret, unless on the avowed principle of protecting, that is, of encouraging, cruelty? With respect to the discretionary powers of the magistrates, such have been by them exercised, during several years, without the smallest complaint of abuse, the chief difficulties in the case, being the want of persons willing to take upon themselves the trouble of apprehending offenders, and afterwards of inducing the magistrates to act with effect. At

the same time, I cheerfully acknowledge, that Earl Stanhope was at his post, when he demurred at this part, in defence of the trial by jury, but have reason to assure myself, that the noble and patriotic lord will always be found among the advocates of humanity, and of the rights of our mute and four legged citizens. In short, a law of this description would, in too great probability, like so many others, in our code, remain a dead letter, from the natural indolence and selfishness of mankind. But the existence of such a law, its very shadow, and the known possibility of legal punishment, would operate as a check upon cruelty, and improve the condition of animals, whilst the great example of the legislature would have the most forcible effects in impressing upon the minds of the people, a due sense of the nature of justice, and of inducing the general habit of humanity.

The opposition to this laudable attempt to prevent, and provide punishment for injustice and cruelty, was conducted in the same strain of levity and merriment, which formerly gave so much disgust, in the defence of the horrors of bull-baiting. Surely the ludicrous cannot with any degree of fitness, apply to such subjects. Nor can it be overlooked, that positive and acknowledged cruelty has been defended,

and its pretended uses specified. It has even been publicly said, it were preferable that these cruelties should subsist, rather than a new law be made for their prevention. The novelty of the principle being a grand objection, and the cruelty being questioned or absolutely denied, brings immediately to recollection, the opposition to the abolition of the Slave Trade, with certain other cases, and in general that opposition which has ever been made, and must be expected, to every plan, the object of which is general amelioration. There is a never dying apprehension, lest the quantum of cruelty and misery, held absolutely necessary to the safe and profitable conduct of the affairs of this world, should run short. And as though the system of nature itself was not sufficiently cruel, men seem ever desirous of making thousand fold artificial additions. I have lately read among the lucubrations of a certain county historian, a severe reproof of the just, humane, and patriotic Letsom and his friend Neale, for their exposition of the dreadful state of too many English prisons, a labour for which they will be most deservedly canonized in the hearts and memories of the compassionate. In the very temperate reprover's opinion, such abuses should not have been unveiled, but left, as they have subsisted during so many centuries, and

might have for centuries more, to the gradual reformation of magistrates. But perhaps in the writer's opinion, and the opinion is too general, *such horrors and cruelties are appropriate to prisons, which are not to be mansions of luxury; and better that all the innocent and unfortunate be victims, than one guilty prisoner escape.* Nothing can be more intelligible, than the meaning of gradual reformation, and leaving things to improving morality, and the ameliorating hand of time; in other words, profit by the abuse as long as you are able, dispute its ground inch by inch, and leave the final struggle to posterity. At last, what abuse was ever removed without a struggle?

It is impossible to entertain so mean an opinion of the intellects of certain persons, as to suppose them arguing sincerely and with good faith; or not to be convinced, that they are actuated by systematic prejudices, which controul their natural humanity. The features of misrepresentation are so strongly marked, that it would be base sycophancy to pretend ignorance. The ground, the leading argument of opposition to Lord Erskine's bill is, that its intent is to enforce the duties of mere morality by an act of legislation, a purpose, which it must be obvious to every one who has perused the bill, or the elucidations of the noble Lord,

could never possibly have entered into his contemplation, although he did, as is most rational, expect the consequence of a spontaneous and gradual improvement of manners. The object of the proposed law is not to enforce duties, which must of necessity, be referred to human discretion, but to punish aggressive acts, which natural justice has made unlawful, and which for that plain reason, ought to be held equally so, in the social contract, under which, if brutes be not protected, the great and radical defect of injustice must necessarily be incurred. In truth, the neglect of the *jus animalium*, has been a gross defect in every system of legislation hitherto, and a proposal for the question of its adoption, has of late been made by a very able continental jurist. The claim of beasts is grounded on justice, the same ground on which ought to rest every human claim ; and injustice is such, whether in reference to man or beast. It was remarked with an inapplicable looseness, that ‘ were a man to feel as much for the pains of others as for his own, why then, by the consequent accumulation of evil, the ends of Providence would be defeated.’ Common sense of a very ordinary standard, would discover, that neither reason nor duty prescribe this sacrifice, and nature has provided most amply against the possibility of such error, but the best ends of Providence are defeated by in-

justice, and thence the deplorable accumulation of artificial, avoidable, or criminal evil.

The notorious cruelties committed by the London carmen, by postillions, and even by those miscreants who deal in worn out horses, are glossed over, or attempted to be denied. Such subterfuges have been employed as such a cause ever demands. *The horrors of the middle passage, the murders and cruelties committed upon the negroes, and that compendium of all the crimes that hell itself can instigate, the African Slave Trade, were extenuated—defended.* And after undeniable examples have been selected from all times, including the present, of the most horrible cruelties inflicted upon beasts, and of regular systematic injustice and barbarity, the answer is, ‘ what were they to think of the cry that had been raised for some legislative measures upon this subject? It arose from a false and spurious sort of humanity; and to give way to such a cry, would be to consult the dictates of a fallacious and hypocritical spirit of humanity, at the expence of every good feeling of the human heart.’ The good feelings of the human heart are thus plainly defined, as was humanity heretofore, in the defence of the Slave Trade, for humanity sake.

But I do not omit the context, with the view of taking an undue advantage, the very idea

of which I scorn. The above declaration of humanity was ushered in, under the pretence, that in the case of cruelty to post-horses, which was acknowledged, there was a sort of copartnery in responsibility, between the proprietors, the servants and the employers, but that the latter held the larger share. But the whole affords a poor and beggarly argument, much easier to attribute to our daily paper stainers, than to any man of solid reflection. What results? Why, if only fair and proper exertions have been made, and the case is entitled to considerable allowances, no possible danger can accrue from the law which protects the rights of beasts. But if flagrant, ‘wanton and malicious’ abuse has been used, no doubt such law, with that equality, which ought to be the essence of all law, would punish the offending parties, be they high or low. With respect to the excuse held out for the post boy, that he committed the crime for a *fee*, or his bread, the same plea might be set up for a highway robbery. The base and mercenary instruments of torture are always to be found, from the executioner, jailor, and myrmidon of a private madhouse to the postillion; and regular legal punishments ought to be provided for such, to prevent those irregular effects, which must else arise from the sudden ebullitions of the fury of compassion. But a law in the case

would be a safe guard to the inferior ranks, of which they would avail themselves, as well as a memento to all ranks. Severe use must be allowed, however much to be lamented, such is the constitution of human society, and the general obligation of labour, that a considerable portion of excess seems to appertain to natural, therefore unavoidable evil. But is there then no line to be drawn, no discrimination in this, which is so essential in all cases else; must we still add to nature's already too heavy load, and cannot we exist without the enjoyment of inflicting tortures upon the helpless? There can be no sound plea for cruel and unmerciful usage, either in favour of business or pleasure, both which may, and ought to be consistent with justice, fairness and compassion. Even however considerable may be the difficulties of the case, our business, our pleasures, our pride and luxurious gratifications, are not to be put in competition with justice and mercy, those grand advantages of which we are all so desirous for ourselves, and at the withholding of which, we are wont to be so loud in our complaints. The treatment of animals, and of inferiors is a case in which every honest and fair man would desire a curb upon his passions. In fine, the necessity of some legal protection for beasts, has ever been most apparent, and I apprehend it

ought to be extended to the whole brute creation without reserve, no part of which ought to be exposed beyond absolute necessity, to wanton or malicious cruelty.

Sir Samuel Romilly, that light and glory of English law, and patron of humanity, in a few lines of his speech, fully did away the presumed difficulties of Lord Erskine's bill, at least, to those whose sense of justice is superior to that of petty interests and conveniences. Sir Samuel observed, 'These (wantonly and maliciously abusing) are not words of vague and indefinite signification, but such as magistrates and juries, on other occasions, conceive sufficient for their direction. As to the quantum of punishment or severity, the crime is entirely in the degree of it.' It may not be unuseful for the purpose of illustration, to suppose a few examples. A carman is seen severely whipping his horse; it is sensible that there exists a law which will take cognizance of cruelty, he will submit to be questioned by those, who have at least as good a right to range themselves on the side of the oppressed, as he has to be an oppressor. He will perhaps prove satisfactorily, that he has only used a necessary severity required by that particular animal, or perhaps have the candour to state, a case which I have experienced, that from the hardness of the times, he cannot feed

so well as he would wish, and is compelled by necessity, to a treatment of his horses, very different from his real desire. After such a declaration, would any man of common sense, think of punishment? but yet a few rational words in favour of the horse, might have improving effects upon the mind of his owner or driver. But should a man whip or beat cruelly and maliciously, a poor and worn out horse, staggering, or perhaps falling under his sufferings, and evidently incapable of the exertion required of him, it is too plain a case to be mistaken, and such a delinquent ought to suffer the penalty of the law. Men ought not to be permitted to subsist on the agonies and miseries of animals, the strength of which has already been exhausted to the very lees, in a whole life of perhaps the severest services. I allude to those miserable objects intended for slaughter, which, if they shew but an existing spark of life and strength, are purchased for renewed labour, and even too often of the severest kind. Here it is, that vigilance among those who wish to serve the cause of humanity, is wanted, and that some severe examples might be beneficial. I know no other method of decreasing the horrid but common practice, of torturing out animal life to the last sob!

A gentleman in the ardour of the chace, Vol. I. p. 196, shall ride his hunter to death. The horse shall have been in high blood and condition, and from his generous eagerness in following the hounds, shall have, in all fairness, incurred a share of the blame with his master, who was actuated by the same headlong and furious enthusiasm. That such fatal eagerness sometimes exists in the breast of the hunting horse, is well known to horsemen. The horse has been supposed to enjoy a race, a thing which I have never been so fortunate as to perceive, intimate as I have been with race horses, but that many have a real enjoyment in hunting, is beyond all question. The trotting hack mentioned in the first volume, to which I was so attached, had such real enjoyment in hunting, that I have sent her twice a-week into the field, merely to gratify her, although I ever detested hunting myself. I once sent a half-bred hunter into the field, in a light country, where the horses went a racing pace, and mine not being ridden with sufficient caution, ran until it burst itself, and dropped down dead. Nevertheless horses have been wantonly and cruelly sacrificed in this way, literally whipped and goaded to death, atrocious cases totally different from the former, and most truly me-

riting that reprehension and punishment, which they are never likely to meet, under the bill in question or any other. The case of driving to death the wretched worn out post horse, is a crime of a different shade and a far deeper dye, and never ought to escape severe punishment.

The ordinary use of the whip upon the regular race course, although far too severe and frequent, Vol. I. p. 254, can scarcely ever become the subject of legal question. Happily, this and all other severities upon the course are materially softened and reduced in our times, for which the lovers of humanity are indebted to no individual so greatly, as to Sir Charles Bunbury, who has through life made use of his great opportunities and practical knowledge, to divest his favourite sport of horse racing, as much as is possible, of all cruelties. Sir Charles Bunbury never suffers any rigorous or cruel discipline to be used towards his horses, causing them to be treated in their labour, with all fairness, justice and compassion. He, in many cases, even totally interdicts the use of the whip and spur, and indeed never permits it, but on an evident and just necessity, and then to be administered in the most temperate and sparing way. Sir Charles's turf motto, and I have it now before me, in his own hand writ-

ing, is—*parce puer stimulis*. The example of this eminent and humane sportsman has had great and beneficial influence upon the manners of the turf, and henceforth any deviations from the common standard of fair treatment, adopted by gentlemen sportsmen will be more conspicuous, and ought to be liable to legal controul and merited punishment. For example, no magistrate or jury, could hesitate a moment in such a pitiable case, as that of the poor old fleabitten grey gelding, Vol. I. p. 158, or in that late instance of detestable and black-guard cruelty, upon the inhuman perpetrators of which a whole county ought to have risen, the match of two horses to be run unto death! in which, one, after having been urged onward with the severest tortures, in the power of the hell-hound bestriding him to inflict, having fallen heart-broken and dead, was actually hoisted upon a carriage, and drawn full speed, by four fresh tortured victims, in order to gain the goal before his competitor, and thereby win the race with his dead carcase! Surely all the worthy part of society will agree with one voice, that actions thus desperately immoral and wicked, must be forbidden and punished under every just system of human government, and that no pretence of worldly profit or convenience, ought to stand in the way of a law

for that end. Could the magistrate hesitate for a moment on the case of the Manchester butcher, Vol. I. p. 132, who cut off the feet of his sheep, in order to drive them with *convenience*, or of the baker, who lately threw a miserable dog into his heated oven?

I am aware of an objection from the refined and courtly writers of the present time, that I have not treated this subject in a *conciliating* way: no, as the case stands, I should have deemed such a proceeding scarcely honest, and considering the general apathy, far more probable to be injurious on one side, than beneficial on the other. There are cases, in which the appearance of truth in *puris naturalibus*, is indispensable, however it may disgust the delicate and fastidious, and perhaps there never was a time, in which the public was so grossly flattered, or so deeply injured by flattery, as at present. There is an open and avowed ridicule of compassion, and of those whose hearts are warmed by it, and a regular systematic defence of cruelty for certain pretended advantages. Against such principles, a man may determine to speak his mind with the utmost freedom, although at the same time, desirous of treating many of the persons who entertain them with the highest respect.

Attend, impartial reader, if such a being exist, to the lamentation of an unfortunate wight, acknowledged by no party; for which of them, philanthropist or antiphilanthropist, whig or tory, will agree with me? I say attend and determine upon the justice and rationality of my scheme. Hereafter followeth my confession; my motto is, *all for truth*, and I never view the compromise of expedience, without extreme distrust, too often with the most penetrating sorrow and regret, at the imperfection and imbecility of our nature. But *homo sum*, and as a man, I must, and therefore will, submit to legitimate expedience, whilst I condemn and execrate the pretended, hypocritical, and illegitimate.

I have said, (philosophy of sports) assigning my reasons, that hunting and cock fighting may be tolerated, and that horse racing and boxing, are diversions calculated for most useful and important purposes, in a community. I have endeavoured to prove, that all these may be enjoyed without any trespasses upon the rights of justice and humanity, drawing the line and stating the important difference between the fair and lawful labours, or voluntary sufferings of men and animals, and the unlawful and cruel sufferings of beasts, which are

bound and staked to the torture. In my system, there is no aggression or trespass. Yet surely boxing and cock-fighting afford enough of the example and practice of hardihood, for good lessons against effeminacy, and to keep alive a manly boldness, the source of martial ardour, without the base and unnatural recourse to animal torture ; and this part I address to the reflection of the great patron of bull-baiting, and with the remark, that bull-fighting continued through centuries, with a refinement which may well be styled by us, who are not *mealy mouthed*, the very sodomy of cruelty, have not made the Spaniards soldiers, nor enabled twenty thousand of them to beat ten thousand French, who notwithstanding, never enjoyed the immense advantage of torturing animals in their military education.

To address myself to the humane party, who surely ought to honour me with some small share of their attention, on what sufficient ground, can they class together, as they do, the barbarous torturing of animals, with their legitimate use ; what warrant have they, in this case peculiarly, for arguing from mere abuse, or how will they avoid the just reproach of a want of discrimination, which they will readily throw upon their antagonist ? Of the *rational*s of this party, I would seriously ask, whether

they expect, that the human mind will ever be divested of those passions, which naturally produce dissention and combat, and whether they cannot discern a balance of good, in the English practice of boxing—of advantage, and even lawful amusement, in horse racing, which fairly conducted, most assuredly is not so great a trespass upon the feelings of horses, as occurs daily, in the ordinary business of life, nor greater than that to which men voluntarily expose themselves? What—is it unlawful, to put to a fair test, and witness the exertions of the courser, after that mode, in which nature has chosen peculiarly and specifically to distinguish him? Such an idea would be equally irrational, as the exemption of his back, appropriated by nature to the burden, from ever bearing one, on the plea of a spurious and wrong headed humanity. The practice of cock fighting also, Vol. I. p. 187, ought never to be confounded or compared with that of throwing at cocks, a cold blooded barbarity, under the influence of the basest passion of the human soul. It is important to mark the difference. In cock-fighting, the object is to witness the result of voluntary combats. The animals themselves participate, they follow their peculiar natural instinct, and would pursue the same course, did they meet in their own walks, or upon Salis-

bury plain. They would there fight it out *ad internecionem*, and with much more fortitude and certainty, I apprehend, than some of their masters, who have formerly proposed interne-cine war. I lately read in an Irish newspaper, of certain of our conjuring humanists, who made prisoners of the ringleaders of an assembly engaged in the diabolical sport of cock-fighting, killing the cocks. Well, these gentlemen may not have reflected on the difference, and had it been throwing at cocks, I should have highly applauded their zeal and humanity. I am therefore, in some degree, content; but when I soon after read, in an English paper, the boasts of some of our zealous reformers, that they had completely driven the prostitutes from a certain quarter of a populous city, and hoped in time, totally to expel them, and that certain poor labourers were apprehended and fined for shaving and being shaved, or baking their hebdominal joint, sent on the day marked number seven, in our reckoning, I could not help exclaiming with the poet—

“Protect us mighty Providence, what would these madmen have?”

Do these modern Solomons consider, that the regular demand of the market of love must

and will be supplied, and that for every prostitute withdrawn from the public service a recruit must be raised? But perhaps, hush! is all which is required by the saints. To put an end to boxing, horse-racing, cock-fighting, and—wenching!!! A most hopeful speculation doubtless, when it has come out, that even the authors of the Christian hero, and of the Evidences of the Christian religion, had both colts teeth in their heads, and that the elders of the tabernacle, ancient and modern, have not seldom, ranked among the best customers of the sisterhood. In these respects, I agree with a certain popular writer—we are not to be Hannah Mored into reformation.

It will appear, I trust, on mature reflection, to those who are sincerely desirous of ameliorating the condition of brute creatures, and of imbuing the minds of the people of this country, with a rational compassion, that their object must be retarded by those misconceptions which I have noted, and by the well grounded fear which must be entertained by their opponents, of attempts under the guise of reform, to throw impediments in the way of the really lawful business and pleasures of life. To address both parties, surely on the one hand, it must be deemed by the most zealous, an advantageous compromise, to adopt a plan, in

which the active energies and curiosity of the people, may be gratified with the smallest possible trespasses on justice and animal feelings; and they will not forget, that human wisdom is nought but a series of compromises. And the other party should remember, that the lawful use of animals, to its fullest extent, is proposed to be left unretrenched. Safely indeed, may the most tenacious agree to these measures, and under the full assurance, that human passions and interests will ever prove sufficient mounds against an overflow of humanity! I too well know, that with respect to practice and the actual routine of human affairs, my scheme, as well as all others which aim at correct and even handed justice, are perfectly utopian. Nature has given to beasts an inheritance in the earth, as well as to men; they hold by the tenure of duties, as well as men, and I would not take from beasts more than from men, an iota of their just rights. Feeling is feeling, whether in man or beast, and according to temperament, may often exist in a higher and more intense degree, in the latter. How easily may a man assimilate himself to a beast, by supposing himself in a state of slavery, diseased, insufficiently fed, fainting under a burden, and recovered by cruel and bloody stripes, the purpose of which is to excite the last spark of vital power for the

profit of the tyrant. Should there yet be no pity for the poor worn out horse, under similar circumstances! I speak to those, who have hitherto made no use of that compassion, which nature may have bestowed upon them. But if to aim at perfection be utopian, yet our systems and our laws ought to be grounded on the clearest principle of right, instead of a presumed expedience being adopted as a principle. The bottom of the fountain being muddy, the waters will always be contaminated, and the vermin hatched and nourished by the filth, will struggle to the last for their existence.

I have sufficiently, in the course of this work, expressed my opinion of superfluous and impertinent legislation, but the experience of all times, even the present however enlightened, has proved the necessity of a legal controul over the actions of men in the case of beasts, which is not merely a question of morals, but of right, and on the general issue I wish to go beyond Lord Erskine's. I would have the whole animal creation included, but should be satisfied with the simple declaration of the right of animals to be protected from cruelty. It must be the business of the moralist afterwards, to form the minds of the rising generation upon that model; and in practice, to adhere as closely to the principle of the general law, as natural evil and fair expedience will admit.

A law being instituted for the warrant and assistance of those, who meditate the propagation of justice and compassion both to man and beast, let us see on what beside they have to depend, the materials on which they have to work, and the difficulties they have to encounter. They who have amused themselves and others, with the idea of an earthly millenium, perfectibility, or perfection here, have but superficially considered the nature of man and the world. Can elements be changed and the fabric subsist? The world will ever abound with injustice, cruelty, and misery, which indeed are of the elements of its composition, and can at best be balanced by the opposite virtues. Yet Johnson said, that men naturally love justice, which must be taken in a general sense; for in that sense, justice is our great dependence here, and our only rational hope hereafter. The system of nature is inevitably, and from the unimpeded progress of causes and effects, notwithstanding so many boasts of its benevolence, a system of the greatest cruelty, and the glory of its correction has been conferred on the due exercise of the reasoning faculties of man. Both good and evil may be propagated in endless variety, but still being essential principles, there must of necessity be good and evil, thus there will always be cruelty and

injustice in the world. There will ever be men, who by their words and actions, appear to love injustice for its own sake, even independently of the profit it may bring. Nevertheless improvement in the faculties and condition of man has an immense and practicable stride to make.

On the above principles, we ought to learn also the virtues of forbearance and compassion towards those who possess them not; and herein all legislatures, have been deficient, who have instituted punishments grounded on an impotent revenge, instead of mere preventive and exemplary justice. In the archives of certain regular governments, overthrown by the French Revolution, were found whole volumes on the scientific and mechanical branches of the torture! It was not perceived, that the most wicked man who has ever existed, must have acted merely from the impulse of his nature, and such are not forewarned by example, simply because nature investing them with too much boldness, denies them an adequate share of caution. The torture, could any preventive benefits be ascribed to it, and the contrary is said to have invariably resulted, would be an unjust and diabolical extension of animal suffering. Has an individual been guilty of inflicting the greatest tortures? by the revengeful punishment of him, in a similar

way, you do but add another unit to the already frightful sum of animal suffering. You make war against the howling winds.

I have spoken of the necessity of adducing particular examples of cruelty to brute animals, from the general inadvertency on that head, in all times, and among all classes of mankind, from the most learned and religious, to the lowest and most ignorant. The ancients directed the young steer to expire in tortures, from the corruption of the carcase of which, a swarm of bees was to be generated. The old Cologne Dispensatory prescribed the necessity of killing the bird by *fatiguing it to death*, of which their *aqua caponis*, or chicken broth, was to be made. Our London College afterwards, with English humanity, presume that the fowl will be killed previously to being plucked and embowelled. I have somewhere read of the cruelties of the old Catholics to cats, and Shakespeare alludes to the torments of a cat in a bottle! the very idea curdled my blood, and filled my mind with a gloom almost bordering on despair, from which indeed there is no other defence than the fortitude, arising from necessity, that strong hold of rational man. I recollect seeing an old advertisement of the amusements to be presented at Hockley in the Hole, or the Bear Garden, among which, was

to be a dog drawn up by fire ! How are we to account, that one being endowed with feeling, and with the reasoning faculty, can feel pleasurable gratification in the writhings, the excruciating torments, of another being, the sufferings of which, demonstrate its sensibility ? The motive assigned by Aristotle, curiosity, is insufficient, and one is driven to suppose a great infusion of the pure spirit of abstract cruelty from hell. Boys and young men are particularly addicted to cruelty, from nature, the stimulus of curiosity, or desire of action ; and I knew one of a party of young demons, who nailed an unfortunate cat to a gate post, through her paws, afterwards torturing her to death ! About the same time, demons both old and young, were in the habits of tying cats together by the hinder legs, and hanging them across ropes or rails, in order to enjoy the exquisite pleasure of seeing the unfortunate animals bite, and worry each other to death ! I have known young surgeons in the constant habit of catching cats in steel traps, for the mere pleasure of dissecting them alive. About three years since, some miscreants in the vicinity of Smithfield, were seen by my informant, amusing themselves with the agonies of a poor hedge hog burning alive ! I have been informed, indeed many years ago, that the

grossest cruelties were committed upon the deer when run down and taken at the annual Easter Hunt upon Epping Forest, the horrid Abyssinian practice being literally followed, of cutting pieces for distribution, from the living animal; but I trust the magistrates of that district, would not at this time, permit such an abomination. In Percival's account of the Cape of Good Hope, it is confirmed, that the Dutch colonists, perhaps among the greatest barbarians upon the face of the earth, cut pieces with knives out of the flesh of their draught cattle, when weak, unable, or lazy, and that the drawing the knife and whetting it, occasions the utmost irritation and tremor in the miserable animals. Hall in his late entertaining travels in Scotland, gives account of certain barbarous sports; riding at geese which are hung up alive, to be caught hold on, and torn down by the horsemen as a prize; and the students, with the barbers at Edinburgh, are said to amuse themselves by hunting cats to death in saw-pits! I wish I had also read, that the zeal of the Scottish clergy had been equally warm and effectual against these moral enormities, as against philosophy, writing of plays, and church music. But the general system of theologians is restricted too much to the concerns of another and better world, to admit of

verse. Good dinners, good singing and hilarity, would attract subscribers, and most assuredly men assemble in this way, on far less important occasions. The bust of the humane and generous Sir Richard Hill would with much propriety deck their rooms, whose charity to aged and decrepid horses is so well known. And the memory of Toussaint L'Ouverture, the negro chief, well deserves our reverence on the same account.

But no other measure can be of so great and general consequence, as that of parents instilling into the minds of their youngest children just ideas of compassion, accompanied with constant practical lessons and explanations. The certain effects of this I can speak to, as to my own contracted circle, in which the youth of both sexes, instead of exulting, as is common, in the miseries of beasts, pay the penalty of light and compassion, by too great sympathy in their sufferings. In the general mode of bringing up children, they are absolutely taught to experience delight in animal misery. Do they see a horse, dog, or cat, the first wish of their hearts is to inflict pain upon it, and more especial if poor and miserable to view! The very sayings which are first impressed upon the ears and minds of children, in the nursery, are of dreadful import:—

“ Lady bird, lady bird, fly away home,
Your house is on fire, your children will burn.
Ding dong bell;
Pussy catty in the well.
My mamma killed me,
My daddy ate me,
My little sister picked my bones,
And buried them under cold marble stones.”

I should be curious to know the motive of the codshead, who was the original inventor of such infernal trash for the use of the nursery.

In the Monthly Magazine, I particularly adverted to the sufferings of poor horses, and other cattle in parish pounds. A law is certainly required in the case. The animals ought to be fed, and the cost defrayed by their owner, or by sale. A shed ought to be erected in every pound, to keep them dry. A law also is much wanted, with a considerable penalty, one half to the informer, against that infamous but too common practice, of beating out the teeth of the colt, in order to make him appear older than he is, and fit for immediate labour; from which deception, vast numbers of colts are prematurely ruined, and the public shamefully cheated. The law ought to interdict the shameful practice of putting out the eyes of singing birds, for which a fellow belonging to Covent Garden market, was lately punished by the magistrate. Enemy as I am to calling

in the aid of legislation wantonly and unnecessarily, I should rejoice to hear of a heavy penalty attached to the horrid and unnecessary practice of fleaing eels alive, by which the animals endure such lengthened tortures ; a practice utterly unnecessary, since the skin of the eel is rich, gelatinous and nourishing, indeed equally with the flesh. As to killing them, to stun them with blows on the head, or cut into their brain, are the only methods. For the cruelties practised on other fish, and on wild animals, nature seems to have left us without a remedy, but improved morals would mitigate them.

The case of the poor horses sold to slaughter is nearest my heart, but I can devise no remedy. Within these few days, I saw one lying in the streets, which had dropped from mere famine. He turned his head piteously towards his hollow flanks, and I was obliged to turn mine from the by-standers, to hide my tears. Not long since, I saw one of these miserable victims, in harness staggering and falling, in agonies, and the dung dropping involuntarily from him, at the same time, writhing under the abuse of a heary miscreant, who seemed to take pleasure in deriding his sufferings. And strange it is, that poverty and misfortune should attract contempt, and even hatred, but the

wretched animals in question, are the common objects of ridicule and of abuse, instead of compassion. Our sympathies surely ought to be, in a peculiar manner, excited in favour of these objects, which have most of them already been exhausted by a whole life of labour; and those who are ambitious to serve this cause, in the metropolis, should devote as much as possible of their attention, to this class of unfortunate creatures, and to their treatment by the carmen, the excessive cruelty of which may be too often seen in the affrighted and affecting looks of the animals.

Upon the turf, the wanton cruelty of the whip has given way to increasing light and humanity; surely we may hope soon to have the same boast to make, with respect to the coaching system, in town, of our persons of rank. It is somewhat extraordinary, but doubtless the effect of stupifying custom, that ladies of high and exquisite sensibility, can sit unmoved at the cruel whipping of coach horses at a rout, or at the opera house. I must be bold to say, that it is most disgraceful, and to pretend to be certain, that it is equally unnecessary. Nothing can be more clear, than that a horse cannot be whipped through the eye of a needle, or into an impossibility, and most of the horses in question are too eager. The practice is a

mere base and silly gratification in the coachman, and mere customary stupidity in those who permit it.

A word or two upon the easiest method of putting a period to animal life, the greatest favour we can bestow upon animals, when they are no longer wanted, and when their presence is, or may be the greatest burden to both themselves and us. It is a grand point, to do this with the least possible pain to the animal, and without its consciousness of the approaching blow. Here nature has indeed favoured us, and never was there a more wrong headed view, than the sentiments of those who hesitatingly say, '*life is sweet, we ought not to take away that we cannot confer, and let the poor creature take his chance.*' Such ideas seem to originate in the base fear of death and of trouble. Nature herself has taught us different things. The bringing up so many dogs and cats, and afterwards inhumanly deserting and turning them out, is the cause of a vast load of animal misery and very serious inconveniences. Much cruelty is generally used in depriving the cat of life. The easiest method is to tie a cloth over the head, strike it one or two blows upon the head, with some heavy substance, and then immerse it in a pail of water standing ready, holding it down with a broom.

I have seen them die thus with scarcely a struggle. In hanging the dog, his eyes should be bandaged and a heavy blow or two laid upon his head, before being drawn up. On the dispute as to the preference of *pithing*, or knocking down cattle, I have spoken in my General Treatise on Cattle, 2nd edition. I fear the *bravery* of knocking down an animal fast bound, or secured, and its supposed effects, have decided that question. The terror and uncertainty of the blow, appear to me the objects to be avoided, the difference between the two modes, in other respects, unworthy of consideration. The numbers of eager and curious spectators of the operations of the slaughter-houses, of the gallow-tree, of the breaking a wretch alive upon the wheel in France, under the old, infamous government, at which pleasant spectacle, ladies and men of fashion hired the nearest places of inspection, at high prices! are a theme for the sad and solemn reflection of the naturalist and philosopher. Where are we to find consolation? No where, but in the exercise and enjoyment of the reasoning faculty. There is perhaps a barren sort of consolation, a degree of negative satisfaction to the soul of sensibility, in the thought, that cruelty impartially goes its rounds, that oppression and suffering perpetually interchange, and that the

victims which we lament might in opposite circumstances have been the aggressors. But such views, which might be widely extended, detract nothing from the obligation of our duties.

Mr. Fox, in the case of the Slave Trade, insisted on the necessity of a display of particular acts of cruelty, which is most obvious, in more than one view. How often do we read or hear, in jocular terms, of the dog with a canister tied to his tail, yet an act in its probable, or most certain consequences, of atrocious cruelty. Where can the forlorn and persecuted wretch fly for protection?—and such a subject of merriment! A bullock being hunted through the metropolis, his beef is said to be the better, by two pence a pound! I had indeed finished this subject, in the last paragraph, but dare not omit the following disheartening account, which, considering its connection, and thence most dangerous example, is in a peculiar manner disgraceful to the country. It was stated in all the public newspapers, that during the late election for the county of York, eight post horses per day upon an average, laid dead, or expiring upon the public roads. I forbear other remarks, than that the Magistracy ought always to interfere in such cases, and that they ought to be supported by

the law. During the remarkable great heats in July, 1808, a considerable number of stage horses perished upon the public roads. On the great road to Edinburgh, fourteen or fifteen were killed in one day. I was informed by Mason, the Colchester coachman, a steady and intelligent man in his business, that the allowance of one hour in fifteen, would have saved those horses; and where would have been the damage of such a delay, so much greater being occasioned by frosts and floods? Mason pointed out to me a roan horse, which would have infallibly sunk under the excessive heat; but which he preserved, by allowing him to walk occasionally in his stage, and by afterwards resting him during a few stages. Here is a union between interest and humanity, which does not always so obviously occur, nature perpetually truckling to our interests. I hope this will obtain attention from the body of stage masters; an English public will neither be so unreasonable, nor so inhuman, as to demand of them a strict punctuality of time, under such circumstances.

CANINE MADNESS.

This most dreadful disease, which has hitherto baffled every proposed remedy, even those which might be presumed of the most radical tendency, is now under the consideration of the ablest medical men in this country, the result of which cannot fail to interest the public attention. I reintroduce the subject from Vol. II. p. 295, for the purpose of remarking on that other species of madness, which has impelled certain individuals to deny the possibility of *this*, in opposition to a clear and continued chain of evidence. An Edinburgh physician is among these, who seems also to think as lightly of a cure for the glanders in horses. All other remedies having failed in canine madness, perhaps these gentlemen have merely the intent of trying the effect of hallucination. The notion of the nonexistence of such disease, although of much older date, may have arisen with its present advocates, from the case related by John Hunter, of a gentleman who was bitten by a dog supposed to be mad, and who from mere affright, brought upon himself hydrophobic

symptoms, which subsided spontaneously, on his being ocularly convinced, that the dog really had not been mad. A superficial pamphlet has been lately published on this ground, and on another hypothesis equally unsatisfactory, 'explaining the impossibility of the disease termed Hydrophobia, being caused by the bite of any rabid animal.' According to this author, the disease is merely *hypochondria*, arising from affright at the usual horrors of the case, and that the cure consists in convincing the patient of the impossibility of receiving disease from a brute animal. This scheme is overturned in a moment, by stating the undoubted fact of numerous cases, both of unconscious children and adults totally devoid of sensibility or solicitude on the subject, falling victims to disease; the cases so multitudinous and strongly marked, as to leave no possibility of mistake. As to those cases brought forward in the pamphlet, there has always been plenty of such, the infection of canine madness, like other infections, being very uncertain. There is a systematic boldness in some sanguine people, which often ends in the other extreme. Far too many dogs are bred, and there is a miraculous carelessness about them, in their incipient indispositions, which may have such tremendous consequences. The hunting of dogs of suspi-

cious appearance, during the time of alarm, is most barbarous; inflicting all sorts of cruelties upon the unfortunate and distressed! Something of a net should be provided, to throw over the rabid dog, so dangerous it is, to lay hold on him; and much more effectual regulations are required, for the absolutely necessary purpose of confining dogs in seasons of prevailing infection. I think there are many cases which go to the proof of spontaneous *rabies*.

SCALDS AND BURNS.

Both the stimulant plan, with oil of turpentine or camphorated spirit, &c. and the use of cold water, have been successful, according to constitution and the circumstances of the case.

PURGING SYSTEM.

The use of the common, or Barbadoes aloes for horses, continues, as it ever has been, almost universal. In fact, I have conversed with veterinary surgeons, who apparently had never reflected on the difference between the common and the succotrine aloes, expressing a

surprize, that the latter should ever be given to horses, on account of its price. That farriers are generally supplied with *cheap* drugs, is notorious in the trade, and ought to excite attention elsewhere. The accidents formerly so common from the use of Barbadoes aloes, have been avoided of late years, by a decrease in the quantity of the doses, and I have been informed by Mr. Sandiver, that the usual purge for an aged horse at Newmarket, now seldom exceeds seven drams of common aloes, from which rarely any ill effects occur. Mr. Sandiver, observes, that Matchem Tims, groom to the Duke of Ancaster, was the only person, within his knowledge, who ever used the succotrine aloes, and that the race horse Jethro was killed by a dose of them. The quantity generally used by Tims for a dose, was ten to twelve drams. That such a quantity unaided by other circumstances, could be fatal, I have no faith to believe, who have so often and during so many years, given ten to fourteen drams to various horses, with perfect safety, frequently with very little purgative effect. We have no account of the state of health Jethro might have been in, nor can there be much dependence, as to the species of aloes administered to him.

Mr. White prefers Barbadoes aloes, but without any other reason assigned, than that it is a stronger purgative than the succotrine, a truth already well known. He objects to my grounding an opinion from a comparative trial of the two species, on my own stomach, overlooking the circumstance that I had previously made the same experiment on the stomachs of various horses, induced thereto by the advice of Gibson, the first probably, who made the distinction, and who appears to have had sound practical reasons for it. My opinion remains unaltered on the question, and the constant use of succotrine aloes, both to brute and human patients, has confirmed all I formerly said in its favour, as a stomachic and great promoter of the appetite, as well as a safe and excellent visceral purge. I think a great advantage is given up, by its disuse, nor did I ever know of a horse injured by it, whilst the few accidents that happen in latter times, from the use of the coarse aloes, I believe are to be attributed solely to the smaller quantities prescribed. The peculiar effect of aloes in general, on the lower intestines, is well known, whence its adaptation as a purge to the horse; but the fine species possesses great advantages, and I should conceive is far less dangerous, in hands, from which great accuracy is not to be expected. On the

score of interest, it is easy to conceive that Barbadoes aloes would meet a preference, since in the first instance, it is the cheapest, and little more than half the quantity will suffice.

With respect to my prescription for the horse under the impeded operation of a purge from *badness of the drugs or cold*, Mr. White has made, in all respects, a very uncandid statement. The fact is, I had advised the same remedy in effect, which he has adopted ; but I also added another, and that of a stimulant nature, on the contemplation that the bowels of the horse might be in a torpid, atonic state, with rigor and shivering, of which I have seen a late instance, and thence unable to bear any more medicines of the purgative class. In such case, warm stimulants will frequently prove the safest and best evacuants. Mr. White however occasionally orders succotrine aloes and even rhubarb, although the last be one of those articles, lately said to have no effect upon the horse.

I am perfectly satisfied with my answer to Mr. Blaine on the subject of **MOLTEN GREASE**, and cannot help thinking, that he has not found a very powerful advocate in Mr. White. I certainly can have no doubt, that this grease in the stable phrase, is an effusion of lymph, the consequence of inflammation, but I contend, that

the lymph in the alleged case, is saturated with grease, so as to appear in Mr. White's phrase, 'like fat mixed with the dung.' I suppose in such a sudden colliquation, the melted grease cannot escape quickly enough, through the proper excretories, but is thrown upon the lymphatics. In truth, I have various practical reasons for desiring to retain the popular term grease, both in this case, and the common disease in the legs of the horse. If I assailed Mr. Blaine with unmerited ridicule, it ought, and will recoil upon myself. From the freedom with which I had treated others, Mr. White was certainly under no necessity for making any apology to me, and he leaves me in debt to his politeness. And, notwithstanding my ignorance of veterinary medicine, in his opinion, the reality of which will appear still more clearly, by my different publications on the subject, Mr. White has not scrupled to avail himself of a number of hints from my *Treatise on Horses*, as on collation will appear.

I should really have been happy, to have found Mr. White's books free from that epidemic affectation, which has certainly detracted much from the character of our late veterinary publications. In his Vol. II. dated 1806, he speaks of veterinary science as of late origin in this country, and pretends, that Gibson,

Bracken, and Bartlet, were not aware of the difference which has *since* been found to exist, between the structure and economy of the horse, and that of the human subject, &c. He however has omitted a material part of this strange observation, to be found in a precedent edition, obviously, in consequence of a former remark of mine (*Treatise on Cattle*), and would have wisely consulted his reputation, had he omitted the whole. The writers abovenamed, he supposed, were led, or rather misled by human analogy, and that their practice was unsuccessful; suppositions which the world knows to be groundless, and it is probable, that one at least of those writers had more experimental practice, than has fallen to the share of any individual since. Mr. White should not have drawn upon himself such a dangerous question as the following—on a collation of his books, with those of Gibson, Bracken and Bartlet, how much of *useful* novelty will be found in White? Astonishing too it is, that Mr. White should call a veterinary pharmacopoeia, *untrodden ground, with no guide to lessen the labour of the attempt*. Did he never then hear of the dispensaries of Gibson, Bartlet and Wallis? As to the labour of the attempt, copying and transcription are, to be sure, troublesome enough. But these ve-

terinary gentlemen will scarcely give us room to put in a word in their praise, so full are they of it themselves! Another of them has lately published a pamphlet on horse warranty, in which he also modestly boasts of the originality of that attempt! When professional men publish, the world has a right to expect an account of their own practice; and no high pretensions or change of scenery, can blind us to those constant repetitions which we meet. In Mr. White's books are a number of errors, to which I have before incidentally adverted. As to the diet, exercise, and management of the horse, I apprehend, no experienced reader will look upon this gentleman, as thoroughly qualified. Some of his prescriptions are useful and good, if not new; others are mere flourish, by way of adding a ruffle to the shirt of veterinary science.

There is a way in which our veterinary surgeons might essentially serve the public. It is in exposing those dangerous catch-penny publications, which come abroad, under the names of farriers. I have adverted to the common manoeuvres of such, in my General Treatise on cattle. The name of some farrier is generally borrowed, and a compilation made from different writers, by a scribe, perhaps totally ignorant of the subject. As a specimen of the prescriptions in such, take the following from a

compilation to which the name of Clater has been tacked, and which has been puffed in printed bills, stuck upon the walls, as having saved three hundred thousand horses!—no fewer. For race horses or hunters, after ‘a hard day’s fatigue,’ a drink composed of the following articles, is strongly recommended—senna, salt of tartar, lenitive electuary, Glauber’s salts, and—jalap! Since the manufacturer of this book, had not common sense enough to be apprized of the danger and inhumanity of giving such a debilitating mess, to a poor animal under the circumstances of fatigue and faintness, it may well be apprehended, that grooms and owners of horses, to whom the book professes to be of peculiar use, may be led into a similar act of barbarous stupidity.

My Newcastle correspondent supposes, that the rules of horsemanship which I have drawn, in the first volume, from Hughes’s pamphlet, ought rather to be attributed to Mr. Thompson, author of the Hints to Bad Horsemen. This I dare say is correct, and that Hughes’s name was prefixed to rules, the chief or all of which were pilfered from Mr. Thompson.—It is a trick of the trade.

One part of my apology for the memory of old Mr. Frampton, Vol. I. p. 260, I fear must

fall to the ground. His horse Dragon, and I have never heard he had two of that name, raced about the year 1710, and was twice beaten by Bay Bolton.

I have much standing among my memorandums, on the colds and colics of horses, and other subjects, for which I have neither leisure nor room here. I have observed occasionally a fatal result from the exhibition of quantities of laudanum in gripes, however generally successful, when the stomach and the intestines have been loaded.

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